

Office of Management and Enterprise Services

Solicitation #: 0900000350

Price/Cost



Teaching Systems, Inc.
4601 Hollowtree Drive, Ste 111
Arlington, Texas 76018
1-800-762-4133



Teaching Systems, Inc

\$1074.99



Intro Kit

\$2499.99



Everything Kit

\$4999.99



+



1 Intro + 2 Everything Bundle

COMING SOON

*Builder Kits to make
your own Drone and
Calculator!*

www.teachingsystems.com

Circuit Scribe Pricing				
UPC	SKU	Title	Type	MSRP
867790000203	CS-KIT-MINI	Mini Maker Kit	Kits - Maker	14.99
868693000000	CS-KIT-BASIC	Basic Maker Kit	Kits - Maker	34.99
868693000024	CS-KIT-SUPER	Super Maker Kit	Kits - Maker	79.99
868693000048	CS-KIT-ULTIMATE	Ultra Maker Kit	Kits - Maker	99.99
867790000234	CS-KIT-DRONE	Drone Builder Kit	Kits - Builder	99.99
	CS-KIT-INTRO	INTRO KIT	kits - Maker	1,075.93
	CS-KIT-EVERYTHING	Everything Kit	Kits - Maker	2,499.99
867790000241	CS-KIT-CALCULATOR	Calculator Builder Kit	Kits - Builder	24.99
	CS-B-BASICBOOK	Basic Educational Booklet	Accessories	1
	CS-B-WORKBOOK	Educational Workbook	Accessories	14.99
	CS-A-MAGSHEET-8555	Steel Sheet (8.5" x 5.5")	Accessories	4.99
	CS-N-2PIN	2-Pin Adapter	Modules	5.99
	CS-P-B9V	9V Battery Adapter	Modules	7.99
	CS-O-2LED-RB	Bi-Directional LED	Modules	4.99
	CS-N-BLINK	Blinker	Modules	8.99
	CS-O-IBUZZER-3.3KHZ	Buzzer	Modules	6.99
	CS-N-CON-10X-100	Connector Cables 10-Pack	Modules	11.99
	CS-N-DIY-5X	DIY Board	Modules	6.99
	CS-I-SW-DPDT	DPDT Switch	Modules	6.99
	CS-O-FAN	Fan	Modules	3.99
	CS-O-MOTOR-VERT	Motor	Modules	15.99
	CS-N-NPN	NPN Transistor	Modules	4.99
	CS-I-SEN-LIGHT-NPN	Photo Sensor	Modules	6.99
	CS-I-POT-10K	Potentiometer	Modules	6.99
	CS-O-3LED-RGB	RGB LED	Modules	7.99
	CS-I-SW-SPST	SPST Switch	Modules	4.99
	CS-P-USB	USB Adapter	Modules	8.99
868693000062	CS-PEN-1ML-5X	5 pack Circuit Scribe Pens	Pen	\$47.99
868693000093	CS-PEN-1ML-RETAIL	Circuit Scribe Pen	Pen	9.99
	CS-PEN-BULK	Circuit Scribe Pen - No Packaging	Pen	9.99



| EPILOG LASER

Epilog Laser
Domestic Distributor Pricing
February 14, 2017

Model	Watts	MSRP	Recommended Sales Price			Retail Price One Year Ext. Warranty	
Epilog Laser CO2 Laser Systems							
Epilog Zing 16	30	\$12,900	\$7,995			\$480	
	40	\$14,900	\$9,250			\$555	
Epilog Zing 24	30	\$15,400	\$10,995			\$660	
	40	\$16,400	\$11,995			\$720	
	50	\$18,400	\$13,995			\$840	
	60	\$20,400	\$15,995			\$960	
Epilog Mini 18	30	\$14,650	\$9,995			\$600	
	40	\$16,150	\$11,495			\$690	
Epilog Mini 24	30	\$17,900	\$13,495			\$810	
	40	\$19,400	\$14,495			\$870	
	50	\$22,000	\$16,495			\$990	
	60	\$23,900	\$17,995			\$1,080	
Epilog Helix 24	30	\$19,995	\$15,495			\$930	
	40	\$21,495	\$16,995			\$1,020	
	50	\$23,495	\$18,495			\$1,140	
	60	\$25,995	\$20,995			\$1,260	
	75	\$29,495	\$24,995			\$1,440	
Epilog Fusion M2 32 CO2	30	\$25,995	\$19,995			\$1,200	
	40	\$28,995	\$22,995			\$1,350	
	50	\$30,995	\$24,995			\$1,500	
	60	\$32,995	\$26,995			\$1,625	
	75	\$37,995	\$31,995			\$1,845	
	120	\$45,995	\$37,995			\$2,280	
Epilog Fusion M2 40 CO2	30	\$27,995	\$23,250			\$1,395	
	40	\$30,995	\$25,995			\$1,560	
	50	\$32,995	\$27,995			\$1,680	
	60	\$34,995	\$29,995			\$1,800	
	75	\$39,995	\$34,995			\$2,100	
	120	\$47,995	\$41,995			\$2,520	
Epilog Laser Fiber Laser Systems							
Epilog FiberMark 24	30	\$50,000	\$31,995			\$3,595	
	50	\$57,500	\$39,995			\$3,895	
Epilog Fusion M2 32 Fiber	30	\$54,000	\$38,995			\$4,095	
	50	\$61,000	\$46,495			\$4,395	
Epilog Fusion M2 40 Fiber	30	\$58,000	\$43,495			\$4,395	
	50	\$65,000	\$50,995			\$4,895	
Epilog G2 Galvo Laser	30 P	\$61,000	\$46,995			\$3,995	
	50 P	\$69,000	\$53,995			\$4,395	
	30 WF	\$66,000	\$50,995			\$4,595	
	50 WF	\$73,000	\$57,995			\$4,895	

Epilog Laser
Domestic Distributor Pricing
February 14, 2017

Fiber Wattage	CO2 Wattage	MSRP	Recommended Sales Price			Retail Price One Year Ext. Warranty	
Epilog Laser Dual Laser Source Systems							
Epilog Fusion M2 32 Dual Source							
30 Watt Fiber	50	\$65,000	\$50,000			\$3,500	
	60	\$67,000	\$52,000			\$3,640	
	75	\$71,000	\$55,000			\$3,860	
50 Watt Fiber	50	\$75,000	\$57,500			\$4,090	
	60	\$77,000	\$59,500			\$4,220	
	75	\$81,000	\$62,500			\$4,455	
Epilog Fusion M2 40 Dual Source							
30 Watt Fiber	50	\$70,000	\$54,000			\$3,920	
	60	\$72,000	\$56,000			\$4,000	
	75	\$76,000	\$59,000			\$4,200	
50 Watt Fiber	50	\$80,000	\$61,500			\$4,375	
	60	\$82,000	\$63,500			\$4,500	
	75	\$86,000	\$66,500			\$4,740	



SPITFIRE

Please call for formal quote

Sizes

- 2ft x 2ft
- 4ft x 2ft
- 4ft x 4ft
- 4ft x 8ft

Includes:

- Spitfire Machine
- 4-inch-deep water table
- PC Controller
- Maverick Operating Software
- V-Carve Pro CAD Software
- SheetCAM TNG Software
- Sign Torch DXF Library Software
- Plasma Station
- Arc Voltage Height Control
- Magnetic Break-Away Collision Protection Mount
- Floating Head Switch
- Laser Alignment



Plasms Options:

- Hypertherm Powermax 45
- Hypertherm Powermax 65
- Hypertherm Powermax 85
- Hypertherm Powermax 105
- Hypertherm Powermax 125

Other Options:

- Powermax 45 Consumable Kit
- Powermax 65 Consumable Kit
- Powermax 85 Consumable Kit
- Powermax 105 Consumable Kit
- Powermax 125 Consumable Kit
- 8-inch-deep Water table
- Pipe Rotary Attachment
- Plasma Green Water Table Solution

TROOPER

Please call for formal quote

Sizes:

- 4ft x 4ft
- 4ft x 8ft
- 4ft x 10ft
- 5ft x 5ft
- 5ft x 10ft
- 5ft x 12ft
- 6ft x 10ft
- 6ft x 12ft
- 8ft x 10ft
- 8ft x 12ft
- 8ft x 20ft

Includes:

- Trooper Machine
- Single Zone 12-inch-deep Water Bed
- PC Controller
- Maverick Operating Software
- VCarve Pro CAD Software
- SheetCAM TNG Software
- Sign Torch DXF Library Software
- Plasma Station
- Arc Voltage Torch Height Control
- Magnetic Break-Away Collision Protection Mount
- Floating Head Switch
- Laser Alignment



Plasma Options:

- Hypertherm Powermax 45
- Hypertherm Powermax 65
- Hypertherm Powermax 85
- Hypertherm Powermax 105
- Hypertherm Powermax 125
- Hypertherm Max Pro 200

Other Options:

- Single Zone Down Draft Table
- Plasma Green Water Table Solution
- Oxy Fuel Station on Master Carriage
- Powermax 45 Consumable Kit
- Powermax 65 Consumable Kit
- Powermax 85 Consumable Kit
- Powermax 105 Consumable Kit
- Powermax 125 Consumable Kit
- Max Pro 200 consumable Kit
- Maverick Controller
- Controller Stand Mount

EZ-ROUTER MINI

Please call for formal quote

Sizes:

- 30 in. x 30 in.
- 30 in. x 48 in.

Includes:

- MDF Bed
- PC Controller
- Maverick Operating Software
- VCarve Pro CAD Software
- 3.25hp Porter Cable Router
- Aluminum Dust Foot with Brushes
- Manual Tool Change Z-Setter Plate
- 7 Piece Router Bit Starter Kit

Options:

- 3kw HSD Manual Tool Change Spindle
- Phenolic Vacuum Bed
- Republic Regenerative Vacuum Pumps
- Becker Rotary Vane Vacuum Pumps
- 4th Axis Rotary
- Dust Collection System



EZ-ROUTER

Please call for formal quote

Sizes:

4ft x 4ft
4ft x 8ft
5ft x 5ft
5ft x 10ft
5ft x 12ft
6ft x 10ft
6ft x 12ft

Includes:

MDF Bed
PC Controller
Maverick Operating Software
V-Carve Pro CAD Software
3.25hp Porter Cable Router
Aluminum Dust Foot with Brushes
Manual Tool Change Z-Setter Plate
7 Piece Router Bit Starter Kit



Options:

- 3kw HSD Manual Tool Change Spindle
- Phenolic Vacuum Bed
- Republic Regenerative Vacuum Pumps
- Becker Rotary Vane Vacuum Pumps
- 4th Axis Rotary
- Dust Collection System

EZ SQUARE

Please call for formal quote

Machine with 1.75hp Spindle
Cabinet
PC with Keyboard/Mouse
Mach 3 Operating System
V Carve Pro
Enclosed Cart with drawer
Stomp Brakes for bottom of cart
Front sliding keyboard/controller shelf
Dust Collection Included (dust hose, dust foot)
Shop Vac
Clamping Kit
10 piece Bit Kit
Front E Stop
Lifetime Technical Phone Support
Two Year Parts & Labor Warranty



intelitek▶▶

LearnMate 7

[Click here for LearnMate 7 Customer Information Form](#)

Part Number	Name	Description	2017 MSRP
Dedicated Hosting (Schoolname.Intelitek.com)			
77-1201-0000	Single School 1st Year	LM7 dedicated hosting for 1 school. Includes hosting and set up for up to 100 users	\$800
77-1201-0ADD	Additional 100 Users	Additional 100 users on existing Dedicated LM7 hosted LMS	\$600
77-1201-1ADD	Additional School	Additional 1 school on existing Dedicated LM7 hosted LMS. Fee is per each additional school (100 users per school) Useful for district-wide shared LMS. Schools will be created as a separate categories Each school must purchase their own content. Content will not be shared.	\$600
50-1201-0001	Hosting 1 YR Renewal	LM7 Additional 1 year of hosting for 100 users (flat rate)	\$600
50-1201-0003	Hosting 3 YR Renewal	LM7 Additional 3 years of hosting for 100 users (flat rate)	\$1,500
77-1202-RPT	LearnMate Reporting & Analytics	Advanced LearnMate reporting & analytics tools, which allows teachers to track, compare and analyze students results via 40+ customizable reports. Unlimited learners, courses, reports and notifications. 1 Account per LearnMate site for 12 months.	\$240
TBD	LearnMate 3/5 Content Upgrade to LearnMate 7	Previously purchased LearnMate 3 or 5 Perpetual Content Upgrade to LM7. Only applicable with hosted accounts.	\$695
Shared Hosting (OnlineLearning.Intelitek.com) - Limited Functionality			
77-1207-1010	Single Course Hosted 1YR	Shared LMS for customers who have purchased only 1 or 2 Perpetual Content Titles. Courses will be accessed at OnlineLearning.Intelitek.com. Fee is PER Course PER Year. Up to 35 users per course.	\$300
LOCAL SERVER INSTALLATION			
77-1200-0001	LM7 Local Server Setup without support	LearnMate 7, Local Server Setup and User Support and maintenance for 1 year.	Call for Pricing
50-1200-0001	LM7 Local Server Support- 1 year agreement	LearnMate Maintenance and Support - Local Installation. Excludes Upgrades and Updates. 1 year only.	Call for Pricing

Part Number	Name	Description	2017 MSRP
Middle School - Coding with Robots			
68-3501-0001	CoderZ 1-Year Platform Access	1-year, single student access to CoderZ platform	\$50
78-3501-0001	Middle School Content Pack	1-year, single student access to Middle School curriculum content pack. Contains 45 hours of instruction on introducing coding through robotics. Requires CoderZ platform access.	\$25
Middle School - Volume Pricing Discounts - Single Year Subscription			
N/A	30-User Subscription	20% discount. Discount on purchase of both CoderZ platform and Middle School content pack.	\$1,800
N/A	100-User Subscription	33% discount. Discount on purchase of both CoderZ platform and Middle School content pack.	\$5,025
N/A	500-User Subscription	44% discount. Discount on purchase of both CoderZ platform and Middle School content pack.	\$21,000
N/A	1000-User Subscription	50% discount. Discount on purchase of both CoderZ platform and Middle School content pack.	\$37,500
Middle School - Volume Pricing Discounts - 3-Year Subscription			
N/A	30-User Subscription	3-Year purchase option of both CoderZ platform and Middle School content pack (10% discount vs buying each year).	\$4,860
N/A	100-User Subscription	3-Year purchase option of both CoderZ platform and Middle School content pack (10% discount vs buying each year).	\$13,568
N/A	500-User Subscription	3-Year purchase option of both CoderZ platform and Middle School content pack (10% discount vs buying each year).	\$56,700
N/A	1000-User Subscription	3-Year purchase option of both CoderZ platform and Middle School content pack (10% discount vs buying each year).	\$101,250
High School - Volume Pricing Discounts - Single Year Subscription			
N/A	30-User Subscription	20% discount. Discount on purchase of both CoderZ platform and High School content pack.	\$2,640
N/A	100-User Subscription	33% discount. Discount on purchase of both CoderZ platform and High School content pack.	\$7,370
N/A	500-User Subscription	44% discount. Discount on purchase of both CoderZ platform and High School content pack.	\$30,800
N/A	1000-User Subscription	50% discount. Discount on purchase of both CoderZ platform and High School content pack.	\$55,000
High School - Volume Pricing Discounts - 3-Year Subscription			
N/A	30-User Subscription	3-Year purchase option of both CoderZ platform and High School content pack (10% discount vs buying each year).	\$7,128
N/A	100-User Subscription	3-Year purchase option of both CoderZ platform and High School content pack (10% discount vs buying each year).	\$19,899
N/A	500-User Subscription	3-Year purchase option of both CoderZ platform and High School content pack (10% discount vs buying each year).	\$83,160
N/A	1000-User Subscription	3-Year purchase option of both CoderZ platform and High School content pack (10% discount vs buying each year).	\$148,500

Mobile Robotics

Part Number	Name	Description	2017 MSRP
MOBILE ROBOTICS PROGRAMS		ALL Programs NEED Addition of LMS	
Exploring Robotics	Using VEX IQ Kit 228-2500	Targeted Grades 6-8	
STEM-EXPL-RNK10	STEM: Exploring Robotics, 10 Student Curriculum & easyC V5	Includes: Ten (10) seats Perpetual Individual Licenses of EasyC V5, LM7 Content, Exploring Robotics w/VEX IQ, 10 Students	\$1,590
STEM-EXPL-RNK20	Exploring Robotics, Curr. & EasyC, 20 Students	Includes: Twenty (20) seats Perpetual Individual Licenses of EasyC V5, LM7 Content, Exploring Robotics w/VEX IQ, 20 Students	\$1,740
STEM-EXPL-RNK30	Exploring Robotics, Curr. & EasyC, 30 Students	Includes: Thirty (30) seats Perpetual Individual Licenses of EasyC V5, LM7 Content, Exploring Robotics w/VEX IQ, 30 Students	\$1,890
STEM-EXPL-ROB10	STEM: Exploring Robotics, 10 Student Lab with Hardware Kits	Includes: Ten (10) Perpetual Individual Licenses of EasyC V5; LM7 Content, Exploring Robotics w/VEX IQ, 10 Students; 6 x VEX IQ Super Kit	\$3,390
STEM-EXPL-ROB20	Exploring Robotics, Full kit, 20 Students	Includes: Twenty (20) Perpetual Individual Licenses of EasyC V5; LM7 Content, Exploring Robotics w/VEX IQ, 20 Students; 11 x VEX IQ Super Kit	\$5,040
STEM-EXPL-ROB30	Exploring Robotics, Full kit, 30 Students	Includes: Thirty (30) Perpetual Individual Licenses of EasyC V5; LM7 Content, Exploring Robotics w/VEX IQ, 30 Students; 16 x VEX IQ Super Kit	\$7,170
Intro to Competitive Robotics Using VEX EDR 276-3000		Targeted Grades 7-10, Afterschool Camps & Programs	
ITCR-CURR-ONLY	Introduction to Competitive Robotics for Cortex	Intro to Competitive Robotics, LMS 7.x, Curriculum only	\$1295
ITCR-FULL-0002	Introduction to Competitive Robotics; Full Package 2 students	Intro to Competitive Robotics, LMS 7.x, One (1) Vex Super Classroom & Competition Kit 276-3000; easyC V5 licenses 2 student	\$2,575
ITCR-FULL-0010	Intro to Competitive Robotics; Full 10 Students	Intro to Competitive Robotics, LMS 7.x, Five (5) Vex Super Classroom & Competition Kit 276-3000; easyC V5 licenses 10 student	\$7,240
ITCR-FULL-0020	Intro to Competitive Robotics; Full 20 Students	Intro to Competitive Robotics, LMS 7.x, Ten (10) Vex Super Classroom & Competition Kit 276-3000; easyC V5 licenses 20 student	\$13,040
ITCR-FULL-0030	Intro to Competitive Robotics; Full 30 Students	Intro to Competitive Robotics, LMS 7.x, Fifteen (15) Vex Super Classroom & Competition Kit 276-3000; easyC V5 licenses 30 student	\$18,840
REC I	Using VEX EDR 270-1905	Targeted Grades 9-12	
REC1-CURR-SEM1	REC I / Semester I, Curriculum Only	Robotics Engineering Curriculum (REC) 1, Units 1-3. curriculum only. Includes Teachers Guide	\$1,350
REC1-CURR-SEM2	REC I / Semester II, Curriculum Only	Robotics Engineering Curriculum (REC) 1, Units 4-6. curriculum only. Includes Teachers Guide	\$1,350
REC1-FULL-0010	REC1, Unit 1-6, LMS 7.x, 10 student	Ten (10) student bundle Includes REC1 (Semester I & II), 10 seat Perpetual classroom license of EasyC V5 for Cortex, REC VEX design system kits (x 6).	\$7,870
REC1-FULL-0020	REC1, Unit 1-6, LMS 7.x, 20 student	Twenty (20) student bundle Includes REC1 (Semester I & II), 20 seat Perpetual classroom license of EasyC V5 for Cortex, REC VEX design system kits (x 11).	\$12,020
REC1-FULL-0030	REC1, Unit 1-6, LMS 7.x, 30 student	Thirty (30) student bundle Includes REC1 (Semester I & II), 30 seat Perpetual classroom license of EasyC V5 for Cortex, REC VEX design system kits (x 16).	\$16,170
REC II	Using VEX EDR 270-1906	Targeted Grades 10-12	
REC2-CURR-SEM1	REC II / Semester III, Curriculum Only	Robotics Engineering Curriculum (REC) 2, Units 7-9. curriculum only. Includes Teachers Guide. Prerequisite: REC1	\$1,350
REC2-CURR-SEM2	REC II / Semester IV, Curriculum Only	Robotics Engineering Curriculum (REC) 2, Units 10-12. curriculum only. Includes Teachers Guide. Prerequisite: REC1	\$1,350
REC2-FULL-0010	REC2, Unit 7-12, LMS 7.x, 10 student	Ten (10) student bundle Includes REC 2 (Semester I & II), REC VEX design system Robotics Arms (x 6). Prerequisite: REC1	\$5,843
REC2-FULL-0020	REC2, Unit 7-12, LMS 7.x, 20 student	Twenty (20) student bundle Includes REC 2 (Semester I & II), REC VEX design system Robotics Arms (x 11). Prerequisite: REC1	\$8,449
REC2-FULL-0030	REC2, Unit 7-12, LMS 7.x, 30 student	Thirty (30) student bundle Includes REC 2 (Semester I & II), REC VEX design system Robotics Arms (x 16). Prerequisite: REC1	\$11,113
MOBILE ROBOTICS PROGRAMS		ALL Programs NEED Addition of LMS	
easyC® Software		Targeted Grades 6-12	
63-2060-5001	easyC V5 for IQ/Cortex; Single Seat	Perpetual Individual license of easyC V5 for IQ/Cortex - Download Only, 1	\$75
63-2060-5010	easyC V5 for IQ/Cortex; 10 Seat	Upgrade to 10 Student license	\$295
63-2060-5020	easyC V5 for IQ/Cortex; 20 seat	Upgrade to 20 Student license	\$445
63-2060-5030	easyC V5 for IQ/Cortex; 30 seat	Upgrade to 30 Student license	\$595
63-2060-5050	easyC V5 for IQ/Cortex; over 50 seats	Each additional seat over 50	\$15/each
GAMES			
10-7024-1001	Project, Cone Zone	Classroom Material for Cone Zone Table Game Competition (does not include VEX components)	\$467
10-7024-1002	Project, Puck Pile Up	Classroom Material for Puck Pile Up Table Game Competition (does not include VEX components)	\$467
10-7030-1001	Project, Safe Cracker	Classroom Material for Safe Cracker Autonomous Game Competition (does not include VEX components)	\$750
10-7025-1001	Project, Involution	Classroom Material for Involution Table Game Competition (does not include VEX components)	\$467
10-7025-1002	Project, Full Pull	Classroom Material for Full Pull Design Competition (does not include VEX components)	\$600
10-7025-1003	Project, Cube Conundrum	Classroom Material for Cube Conundrum Autonomous Game Competition (does not include VEX components)	\$600
10-7025-2002	Project, Full Pull XL	Classroom Material for Full Pull XL Design Competition (does not include VEX components)	\$600
10-7026-1001	Project, Green Street	Classroom Material for Green Street Autonomous Game Competition (does not include VEX components)	\$800

VEX IQ			
228-2500	Super Kit	Over 850 Structural & Motion Components, 4 smart motors, 7 sensors, robot brain, controller & batteries included, storage bin & tray.	\$330
228-4000	Classroom Bundle	Twelve (12) Super Kits and two (2) 3" cube kits	\$3,850
228-3060	Starter Kit with Controller	Over 850 Structural & Motion Components, 4 smart motors, 2 sensors, robot brain, controller & batteries included, storage bin & tray.	\$280
228-3080	Starter Kit with Sensors	Over 850 Structural & Motion Components, 4 smart motors, 2 sensors, robot brain, storage bin & tray.	\$280
228-3600	Competition Add-On Kit	Complements a Super Kit, Omni-Directional Wheels allow for complex drives, Chain & Sprocket Kit, over 8 feet of tank tread and chain.	\$100
228-2531	Foundation Add Kit	Contains over 1000 VEX IQ components Structural and motion components included. Includes Storage Bin and Tray	\$80
VEX EDR			
270-1905	VEX, REC 1 Bundle Kit, Cortex	Custom Hardware Kit for Robotics Engineering Curriculum Year 1	\$800
270-1906	VEX, REC 2 Bundle Kit, Cortex	Custom Hardware Kit for Robotics Engineering Curriculum Year 2	\$414
22-0006-0006	VEX, REC 2 Electronics Kit	Custom Add on Kit for REC 2 Electronics components: 1X - 14x10x10" Multi-depth; Corrugated Boxes 25/bundle; 36X - Spring, 0.218" OD x 1.0"L, 0.018; 12X - Wire Resistor, 22.1K ohm, 1/4 W, 1%, carbon film; 12X - Resistor, 3.92K ohm, 1/4W, 5%, carbon film; 12X - Resistor, 100 ohm, 1/4W, 5%, carbon film; 30X - Resistor, 470 ohm, 1/4W, 5%, carbon film; 12X - Resistor, 10K ohm, 1/4W, 5%, carbon film; 12X - Resistor, 1K ohm, 1/4W, 5%, carbon film; 6X - Potentiometer, 10K ohm, 1/2W, 25 turn, cermet; 12X - Photo resistor, 900 ohm - 1Meg ohm, 40V; 6X - Capacitor, 10uF, 16V, electrolytic, radial; 12X - Capacitor, 220uF, 25V, electrolytic, radial; 6X - Capacitor, 0.001uF, 100V, ceramic, radial; 6X - Capacitor, 22uF, 16V, electrolytic, radial; 6X - IC, LM555 Timer, 4.5V-16V, 100ns, DIP8; 12X - LED, Yellow, 30mcd, 5mm, 60 degree, 2.1V; 12X - LED, Red, 40mcd, 5mm, 60 degree, 2.0V; 30X - LED, Green, 30mcd, 5mm, 60 degree, 2.2V; 12X - Transistor, 2N3904, NPN, 40V, 200mA, TO-92; 6X - Switch, toggle, miniature, on-on, SPDT, 3A; 60X - Connector, Test Point, PCB press-in, 0.042 dia; 30X - Connector, header, 3-pin, 0.1 spacing, long lead; 6X - 9 Volt Battery; 6X - WIRE CUTTER; 6X - Digital Multimeter Velleman DVM850BL; 6X - Pliers, Needle nose, 4-1/2"; 6X - Storage box, 18 compartment 8-7/8"x4-1/8"; 6X - Breadboard, 270 tie points, 1-3/4"x3-1/4"; 6X - Breadboard wire kit, 140 pcs 22 AWG, solid wire; 6X - Connector, 9V battery w/8" leads	\$659
276-3000	VEX, Classroom & Competition Super Kit	Competition Hardware Kit (Intro to Competitive Robotics) Includes: Clawbot Robot (4 motors); VEXnet System Bundle, Additional 2-wire motor 393; Robot Battery, Joystick Batteries and Chargers, Mechatronics Add-On Kit (1 motor/2 sensors), Programming Add-on Kit (2 motors/7 sensors)	\$1,130
276-2800	VEX, Classroom and Competition Mechatronics Kit	Classroom Kit includes Clawbot Robot Kit (4 motors); VEXnet System Bundle; Additional 2-wire Motor 393; Robot Battery, Joystick Batteries, Chargers, Mechatronics Add-On Kit, Programming Add-On Kit	\$850
276-2900	VEX, Classroom and Competition Programming Kit	Classroom Kit includes: Clawbot Robot Kit, VEXnet System Bundle, Additional 2-Wire Motor 393 (Robot Battery, Joystick Batteries and Chargers), Mechatronics Add-On Kit, Programming Add-On Kit	\$850
276-2750	Programming Control Starter Kit	Clawbot Robot Kit; VEX ARM Cortex-based Microcontroller; Limit Switch Kit, Bumper Switch Kit, Potentiometer (2-pack), Motor 393 Integrated Encoder Module, Ultrasonic Range Finder, Line Tracker	\$440
276-2700	Dual Control Starter Kit	Clawbot Robot Kit; VEX ARM Cortex-based Microcontroller; VEXnet Joystick & VEXnet Key 2.0;	\$540

Engineering

Part Number	Name	Description	2017 MSRP
Programs Require LMS Add On			
Engineering Curriculum - Requires LMS (add on)			
77-3095-0000	LM7 Content, Virtual, Intro to Engineering	Introduction to Engineering content	\$1,995
77-3065-0000	LM7 Content, Mechanisms	Mechanisms content	\$1,995
77-8154-0001	LM7 Content, Intro to Industrial Design	Introduction to Industrial Design content	\$1,995
77-7027-0001	LM7 Content, Engineering Application Series	Engineering Application Series content	\$495
77-3052-0000	LM7 Content, Virtual, Construction Tech.	Construction Technology content	\$2,495
77-3053-0000	LM7 Content, Virtual, Bridge Design	Bridge Design content	\$2,495
77-3054-0000	LM7 Content, Virtual, Fluids Engineering	Fluids Engineering content	\$2,495
77-3055-0000	LM7 Content, Virtual, Highway Engineering	Highway Engineering content	\$2,495
77-3056-0000	LM7 Content, Virtual, Transportation Eng.	Transportation Engineering content	\$2,495
77-3057-0000	LM7 Content, Virtual, Environmental Eng.	Environmental Engineering content	\$2,495
77-3058-0000	LM7 Content, Virtual, Wastewater Mgmt.	Wastewater Management content	\$2,495
77-3059-0000	LM7 Content, Virtual, Water Supply Eng.	Water Supply Engineering content	\$2,495
77-3060-0000	LM7 Content, Virtual, Pollution Control	Pollution Control content	\$2,495

Requisite Course Package: ALL PACKAGES IN STEM PATHWAYS REQUIRE LMS ADD ON

Foundations of STEM (Requires LMS Add On)		Targeted Grades 6-8		
STEM-FOUN-CORE	STEM: Foundations 45 hours Lab	Includes: Intro to Engineering content, Mechanisms content and material pack (30), Intro to Industrial Design content and material pack (30), Engineering Application Series content and material pack (30)	4	\$9,705

Optional Courses Packages:

Exploring Robotics (Requires LMS Add On)		Targeted Grades 6-8 Using VEX IQ Kit 228-25		
STEM-EXPL-ROB10	STEM: Exploring Robotics, 10 Student Lab with Hardware Kits	Includes: Ten (10) Perpetual Individual Licenses of EasyC V5; LM7 Content Exploring Robotics w/VEX IQ 10 Students VEX IQ Sumer	1	\$3,390
STEM-EXPL-ROB20	Exploring Robotics, Full kit, 20 Students	Upgrade to 20 Student		\$5,370
STEM-EXPL-ROB30	Exploring Robotics, Full kit, 30 Students	Upgrade to 30 Student		\$6,690
77-8108-0000	LM7 Content, Lab, Exploring Robotics with VEX IQ	Exploring Robotics with VEX IQ content		\$1,295

Innovation & Invention (Requires LMS Add On)		Targeted Grades 6-8		
STEM-ININ-LAB10	STEM: Innovation & Invention, 10 Student	Includes: Introduction to Transportation content and materials (10 students), Aerospace content, Aviation content, R&D Automotive content	4	\$6,195
STEM-ININ-LAB20	STEM: Innovation & Invention, 20 Student	Upgrade to 20 Student		\$10,750
STEM-ININ-LAB30	STEM: Innovation & Invention, 20 Student	Upgrade to 30 Student		\$14,995
77-8136-0001	LM7 Content, Lab, Intro to Transportation	Intro to Transportation content		\$800
77-8136-0002	LM7 Content, Lab, Aerospace	Aerospace content		\$800
77-8136-0003	LM7 Content, Lab, Aviation	Aviation content		\$800
77-8136-0004	LM7 Content, Lab, R&D Automotive	R&D Automotive content		\$800

Energy Systems (Requires LMS Add On)		Targeted Grades 6-8		
STEM-ENSYS-LAB10	STEM: Energy & Tech Systems, 10 Student	Includes: Intro to Green Technology (GTC) content and materials (10 students), Alternative Energy content, Green Transportation content, Green Construction content, Resource Conservation content & Renewable Energy content	6	\$9,195
STEM-ENSYS-LAB20	STEM: Energy & Tech Systems, 20 Student	Upgrade to 20 Student		\$15,900
STEM-ENSYS-LAB30	STEM: Energy & Tech Systems, 30 Student	Upgrade to 30 Student		\$21,904
77-8110-0001	LM7 Content, Lab, Intro to Green Technology	Introduction to Green Technology content		\$534
77-8110-0002	LM7 Content, Lab, Alternative Energy	Alternative Energy content		\$534
77-8110-0003	LM7 Content, Lab, Green Transportation	Green Transportation content		\$534
77-8110-0004	LM7 Content, Lab, Green Construction	Green Construction content		\$534
77-8110-0005	LM7 Content, Lab, Resource Conservation	Resource Conservation content		\$534
77-8110-0006	LM7 Content, Lab, Renewable Energy	Renewable Energy content		\$534

Exploring Communications (Requires LMS Add On)		Targeted Grades 6-8		
STEM-COMM-LAB10	STEM: Exploring Communications, 10 Student	Includes: Intro to Communications content, Digital Video Editing content, Digital Photo Editing content, Graphic Design content & Exploring communications materials (10 students)	4	\$5,195
STEM-COMM-LAB20	STEM: Exploring Communications, 20 Student	Upgrade to 20 Student		\$8,795
STEM-COMM-LAB30	STEM: Exploring Communications, 30 Student	Upgrade to 30 Student		\$12,595
77-8150-0001	LM7 Content, Lab, Intro to Communications	Introduction to Communications content		\$800
77-8151-0001	LM7 Content, Lab, Digital Video Editing	Digital Video Editing content		\$800
77-8152-0001	LM7 Content, Lab, Digital Photo Editing	Digital Photo Editing content		\$800
77-8153-0001	LM7 Content, Lab, Graphic Design	Graphic Design content		\$800

Intro to Manufacturing (Requires LMS Add On)		Targeted Grades 6-8		
STEM-INTR-MANF	STEM: Intro to Manufacturing	Includes: BenchRouter 1000 complete kit with CNC Router 6-hour course (Perpetual), and Introduction to Hand Tools 15-hour course (Perpetual) and accessories. Router includes Mach3 control Software, shop vacuum & dust foot, starter bit kit; 30 educational seats of V-Carve Pro; 2 spare pieces of 24" x 16" MDF; G-code projects. (220V version available). Introduction to Hand tools includes a variety of different hand tools to teach safety and proper use.	2	\$12,385

Intro to 3D Printing (Requires LMS Add On)		Targeted Grades 6-8		
STEM-INTR-3DP	STEM: Intro to 3D Printing	Components included: 2 Afinia H800 Printers with 2 year Warranties, 15-hour 3D Printer Curriculum, 3 Perf Boards, Buildtak, Extra nozzle, Extra Filter, 8 - 500g spools of filaments in Various Colors (Blue, Gray, Green, Natural, White, Black, Red & Yellow) and Materials (ABS and PLA). Requires LMS	1	\$7,107
	Upgrade Printer Warranty	Upgrade H800 3D Printer Warranties to 2nd and 3rd years		\$8,166
Intro to Healthcare (Requires LMS Add On)		Targeted Grades 6-8		
STEM-HCARE-LAB10	STEM: Healthcare, 10 Student	Includes: 15 hours of Healthcare content and lab materials for ten (10) students	1	\$3,175
STEM-HCARE-LAB20	STEM: Healthcare, 20 Student	Upgrade to 20 Student		\$4,950
STEM-HCARE-LAB30	STEM: Healthcare, 30 Student	Upgrade to 30 Student		\$6,495
77-8138-0000	LM7 Content, Lab, Healthcare	Introduction to Healthcare content		\$3,200.00
Biotechnology (Requires LMS Add On)		Targeted Grades 6-8		
STEM-BTECH-LAB10	STEM: Biotechnology, 10 Student	Includes: 15 hours of Biotechnology content & lab material for ten (10) students	1	\$3,450
STEM-BTECH-LAB20	STEM: Biotechnology, 20 Student	Upgrade to 20 Student		\$5,250
STEM-BTECH-LAB30	STEM: Biotechnology, 30 Student	Upgrade to 30 Student		\$7,795
77-8137-0000	LM7 Content, Lab, Biotechnology	Introduction to Biotechnology content		\$3,200
Additional Course Packages:				
Landscape Design (Requires LMS Add On)		Targeted Grades 6-8		
STEM-LAND-LAB30	STEM: Landscape Design, 30 Students	Includes: 15 hours of Landscape design content and Pro Landscape High School Educational License	1	\$6,400
Mechanisms - Included in STEM-FOUN-CORE (Requires LMS Add On)		Targeted Grades 6-8		
STEM-MECH-LAB30	STEM: Mechanisms for Intro to STEM, 30 Students	Includes: 15 hours of mechanical principles and applications content including 30+ mechanical components including gears, pulleys and levers.	1	\$3,225

Machining: Mills, Lathes & Plastic Forming

Part Number	Name	Description	2017 MSRP
CNC Bundles		Requires LMS Add On	
Milling Bundles * Requires LMS Add On			
CNC-6100-STRT	BenchMill 6100 Starter Bundle. 110V (Imperial) or 220V (Metric)	Starter Bundle: Imperial/Metric; Specify on the order 110V (Imperial) or 220V (Metric) CNC BenchMill 6100 110V (00-5505-N110) for Imperial or CNC BenchMill 6100 220V (00-5505-0220) for Metric 4"(100 mm) Precision Vise (10-1111-6100) ER16 Collet set-5 pieces (1/8", 3/16", 1/4", 5/16", 3/8") (10-1130-0000) Advanced End Mill Package (10-1113-5000 for Imperial or 10-1113-4000 for Metric) 58 Piece Clamping Kit (10-1111-5000) CNC Curriculum (77-8140-0001 for Imperial or 77-8140-0002 for Metric) * Requires LMS Add On*	\$18,736
CNC-6100-STND-I	BenchMill 6100 Standard Bundle 110V Imperial	Standard Bundle: Includes all items from BenchMill 6100 Starter Bundle Plus: ISO20 Tool Holder with Nut (10-1111-9000) Table Mounted 4 Tool Automatic Tool Changer (10-1115-2000) Jog Pendant Handwheel (10-1111-1000) Machinable Wax for Milling 50 Pieces (10-9120-0000) CNC Curriculum (77-8140-0001) * Requires LMS Add On*	\$22,736
CNC-6100-STND-M	BenchMill 6100 Standard Bundle 220V Metric	Same as Standard Bundle - Metric Version - 220V	\$22,717
CNC-6100-ADV-I	BenchMill 6100 Advanced Bundle 110V Imperial	Advanced Bundle: Includes all items from the BenchMill 6100 Standard Bundle Plus: 100 mm (4") Rotary Worktable (4th axis) with Tailstock (10-1108-8000) (3 1/8") 3 Jaw Chuck (10-1109-3000) 3 pieces Engraving Tool Set 3 pieces (10-1113-7000) Coolant System, 27L (10-1108-1110) CNC Curriculum (77-8140-0001) * Requires LMS Add On*	\$25,611
CNC-6100-ADV-M	BenchMill 6100 Advanced Bundle 220V Metric	Same as Advanced Bundle - Metric Version - 220V	\$26,018
CNC-8000-STRT	ProMill 8000 Starter Bundle 110V (Imperial) or 220V (Metric)	Starter Bundle: Imperial/Metric; Specify on the order 110V (Imperial) or 220V (Metric) ProMill 8000 AC with 12 Tool ATC (00-5509-0110) for Imperial or ProMill 8000 AC with 12 Tool ATC 220V (00-5509-0220) for Metric 4"(100mm) Precision Vise (10-1111-6000) ER16 Collet set-5 pieces (1/8", 3/16", 1/4", 5/16", 3/8") (10-1130-0000) Advanced End Mill Package (10-1113-5000 Imperial or 10-1113-4000 Metric) 58 Piece Clamping Kit (10-1111-5000) ISO20 Tool Holder with Nuts (10-1111-9000) CNC Curriculum (77-8142-0001 Imperial or 77-8142-0002 Metric) * Requires LMS Add On*	\$30,829
CNC-8000-STND-I	ProMill 8000 Standard Bundle 110V Imperial	Standard Bundle: Includes All Items from ProMill 8000 Starter Bundle Plus: 4 Tool ISO20 Tool Holder Package (10-1111-7000) Jog Pendant Handwheel (10-1111-1000) Machinable Wax for Milling 50 Pieces (10-9120-0000) CNC Curriculum (77-8142-0001) *Requires LMS Add On*	\$33,352
CNC-8000-STND-M	ProMill 8000 Standard Bundle 220V Metric	Same as Standard Bundle - Metric Version - 220V	\$33,568
CNC-8000-ADV-I	ProMill 8000 Advanced Bundle 110V Imperial	Advanced Bundle: Includes All Items from ProMill 8000 Standard Bundle Plus: 100 mm (4") Rotary Worktable (4th axis) with tailstock (10-1108-8000) 80mm (3 1/8") 3-jaw Chuck for Rotary Table (10-1109-3000) 3 Piece Engraving Tool Set (10-1113-6000) Machine Mounted Monitor or CPU stand (8000/9000) Coolant System, 27L (10-1108-1110) ER16 Collet set-5 pieces (1/8", 3/16", 1/4", 5/16", 3/8") (10-1130-0000) CNC Curriculum (77-8142-0001) *Requires LMS Add On*	\$38,206
CNC-8000-ADV-M	ProMill 8000 Advanced Bundle 220V Metric	Same as Advanced Bundle - Metric Version - 220V	\$38,396

Turning Bundles			
CNC-7x00-STRT	BenchTurn 7x00 Starter Bundle 110V (Imperial) or 220V (Metric)	Starter Bundle: Imperial/Metric; Specify on the order 110V (Imperial) or 220V (Metric) CNC BenchTurn 7x00 110V (00-5504-0110) for Imperial or CNC BenchTurn 7x00 220V (00-5505-0220) for Metric Tailstock Chuck MT2 Taper 0- 1/2" (13mm) (10-1105-7000) 7 Piece Turning Tool Set with Inserts 10 mm x 10 mm (10-1110-1000) 7 Piece Insert Replacement Set (10-1110-2000) Rolling Center Tailstock MT2 (10-1106-6000) CNC Curriculum (77-8141-0001) Imperial or (77-8141-0002 Metric) *Requires LMS Add On*	\$18,517
CNC-7x00-ADV	BenchTurn 7x00 Advanced Bundle 110V (Imperial) or 220V (Metric)	Advanced Bundle: Imperial / Metric; Specify on the order 110V (Imperial or 220V (Metric) Includes All Items from ProTurn 7x00 Starter Bundle Plus: 4 Jaw Chuck with 3.9" (100mm) Flange with Key (10-1106-7000) Jog Pendant Handwheel (10-1111-1000) Coolant System-110 VAC (10-1108-1110 for Imperial) or Coolant System-220 VAC (10-1108-1220 for Metric) Machinable Wax for Turning 20 pieces (10-9350-000) CNC Curriculum (77-8141-0001) Imperial or 77-8141-0002 (Metric) *Requires LMS Add On*	\$20,350
CNC-9000-STRT	ProTurn 9000 Starter Bundle 110V (Imperial) or 220V (Metric)	Starter Bundle: Imperial/Metric; Specify on the order 110V (Imperial) or 220V (Metric) CNC ProTurn 9000 AC 110V (00-5501-0110) for Imperial or CNC ProTurn 9000 AC 220V (00-5501-0220) for Metric Tailstock Chuck MT2 Taper 0- 1/2" (13mm) (10-1105-7000) Rolling Center Tailstock MT2 (10-1106-6000) 7 Piece Turning Tool Set with Inserts 10 mm x 10 mm (10-1110-1000) 7 Piece Insert Replacement Set (10-1110-2000) CNC Curriculum (77-8143-0001 for Imperial or 77-8143-0002 for Metric) *Requires LMS Add On*	\$24,577
CNC-9000-ADV	ProTurn 9000 Advanced Bundle 110V (Imperial) or 220V (Metric)	Advanced Bundle: Imperial/Metric; Specify on the order 110V (Imperial) or 220V (Metric) Includes All Items from ProTurn 9000 Starter Bundle Plus: 4 Jaw Chuck with 3.9" (100mm) Flange (10-1106-7000) Jog Pendant Handwheel (10-1111-1000) Coolant System-110 VAC (10-1108-1110 for Imperial) or Coolant System-220 VAC (10-1108-1220 for Metric) Machine Mounted Monitor or CPU Stand (10-1105-5000) CNC Curriculum (77-8143-0001 for Imperial or 77-8143-0002 for Metric) *Requires LMS Add On*	\$26,323
CNC Machines			
00-5505-N110	CNC BenchMill 6100 110V	3 Axis Stepper Based Machining Center with Pneumatic Shield Opener (110 VAC) CNCBase Software Accessory Kit with: - ISO20 tool holder - 1/8" collet - 1/8" End Mill with 1/8" Shank - Hold Down Set Doesn't include vise, recommended to add 4" (100 mm) Precision Vise (10-1111-6000) *Requires 90 PSI Air pressure	\$14,934
00-5505-N220	CNC BenchMill 6100 220V	220V Version of CNC BenchMill 6100 with Metric Tooling Doesn't include vise, recommended to add 4" (100 mm) Precision Vise (10-1111-6000) *Requires 6 BAR Air pressure	\$14,934
00-5504-N110	CNC BenchTurn 7100 110V	Stepper Based Turning Center with 4 station Automatic Tool Turret (110 VAC) CNCBase Software Accessory Kit with: - 2x Dead Center(1long, 1 short) - Allen Wrench Set (4 keys) - 8-10 mm Wrench - 12-14 mm Wrench - Electrical Panel Keys - 5x20 mm Fuse- 10 Amp - Chuck Key-T Handle - 2 Chuck Jaws - Ethernet Cable - Cutting Tool 10mm x 10mm	\$14,934
00-5504-N220	CNC BenchTurn 7100 220V	220 Version of CNC BenchTurn 7100 with Metric Tooling	\$14,934
00-5509-0110	ProMill 8000 ATC 110V	3 Axis AC Servo Machining Center with 12 Station Automatic Tool Changer (110 VAC) Pneumatic Power Draw 2bar CNCBase Software Accessory Kit with: - ISO20 tool holder - 1/8" collet - 1/8" End Mill with 1/8" Shank - Hold Down Set Doesn't include vise, recommended to add 4" (100 mm) Precision Vise (10-1111-6000) *Requires 90 PSI Air pressure	\$26,667
00-5509-0220	ProMill 8000 ATC 220V	220 Version of ProMill 8000 AC with 12 Tool Changer and Metric Tooling Doesn't include vise, recommended to add 4" (100 mm) Precision Vise (10-1111-6000) *Requires 6 BAR Air pressure	\$26,667
00-5501-0110	ProTurn 9000 110V	AC Servo Turning Center with 4 station Automatic Tool Turret (110VAC) CNCBase Software Accessory Kit with: - 2x Dead Center(1long, 1 short) - Allen Wrench Set (4 keys) - 8-10 mm Wrench - 4x Open Ended Wrench (5.5-7mm, 8-10mm, 12-14mm, 17-19mm) - Spanner Wrench - Electrical Panel Keys - 5x20 mm Fuse- 10 Amp - Chuck Key-T Handle - 3x Chuck Jaw - Ethernet Cable - Cutting Tool 10mm x 10mm	\$20,994
00-5501-0220	ProTurn 9000 220V	220 Version of ProTurn 9000 with Metric Tooling	\$20,994

CNC Accessories

Accessories for Milling Center (6x00/8000)

10-1111-6000	4" (100 mm) Precision Vise	4" (100mm) Precision Machine Vise (6x00 / 8000)	\$206
10-1108-2000	4" (100mm) Vise with Angle Adjustment	4" (100mm) Vise with Angle Adjustment for Mill (6x00 / 8000), allows for Angle adjustments.	\$298
10-5810-0000	Machinist Kit	Machinists Kit : One - 10-1111-6100 - 4" (100mm) Precision Vise Four- 10-1111-9000 ISO20 Tool Holder with Nut One - 10-1112-1000 - Storage rack for ISO 20 Tool Holder One - 10-1112-2000 - ER 16 Collet set 8 pieces (3,4,5,6,7,8,9 and 10mm) One- 10-1111-5000 - 58 Piece Clamping Kit One - 10-1113-5000 - Advanced End Mill Package (14 tools) (6x00/8000)	\$2,125
10-1115-2000	Table Mounted 4 Tool Automatic Tool Changer	Table Mounted 4 Station Automatic Tool Changer 8 holder tool rack 4 tool holders Tool holder wrench 8 collets(6x00/8000)	\$2,188
10-1113-1000	4-Station ATC, Table-mount	Table Mounted 4 Station Automatic Tool Changer (6x00 / 8000)	\$534
10-1111-7000	4 Tool ISO20 Tool Holder Package	Tool Holder Set to include: Four ISO20 Tool Holders with Nuts 6 piece ER16 Collet Set: Three 3/8" (10mm) One 1/4" (7mm) One 1/8" (4mm) Collet One Tool Holder Rack for 8 Tools (6x00/8000)	\$1,657
10-1111-1000	Jog Pendant Handwheel	Jog Pendant Handwheel Control (6x00/8000)	\$795
10-1115-0000	ER16 Collet Set-8 pieces (2x 3,6,8,10mm)	8 Piece ER16 Collet Set, 2 each of the following: (0.078 - 0.118", 2mm - 3mm) (0.197 - 0.236", 5mm - 6mm) (0.276 - 0.315", 7mm - 8mm) (0.354 - 0.394", 9mm - 10mm) (6x00 / 8000)	\$207
10-1130-0000	ER16 Imperial Collet set-5 pieces (1/8", 3/16", 1/4", 5/16", 3/8")	Imperial Collet Set for 6x00 / 8000	\$226
10-1112-2000	ER16 Metric Collet Set-8 pieces (3,4,5,6,7,8,9,10mm)	Metric Collet set for 6x00 / 8000	\$226
10-1113-0000	ER16 Collet - 10mm (0.39")	6x00 / 8000	\$35
10-1112-4000	ER16 Collet - 4mm (0.15")	6x00 / 8000	\$35
10-1112-7000	ER16 Collet - 7mm (0.27")	6x00 / 8000	\$35
10-1113-5000	Advanced End Mill Package, Imperial	14 Piece Advanced End Mill Set, Imperial, (2 Each of the following): 1/8" Dia. 4 Flute End Mill 3/16" Dia. 4 Flute End Mill 1/4" Dia. 4 Flute End Mill 5/16" Dia. 4 Flute End Mill 3/8" Dia. 4 Flute End Mill 1/8" Dia. 2 Flute Ball Mill 1/4" Dia. 2 Flute Ball Mill (Straight Shank) (6x00/8000)	\$200
10-1113-4000	Advanced End Mill Package, Metric	12 Piece Advanced End Mill Set, Metric, (2 Each of the following): 3mm Dia. 4 Flute End Mill 6mm Dia. 4 Flute End Mill 8mm Dia. 4 Flute End Mill 10 mm Dia. 4 Flute End Mill 4 mm Dia. 2 Flute Ball Mill 6mm Dia. 2 Flute Ball Mill (Straight Shank) (6x00/8000)	\$200
10-1113-3000	3 Piece End Mill Set, Imp	3 Piece End Mill Set, Imperial 1/8" Dia. 4 Flute End Mill with 1/8" Shank 1/4" Dia. 4 Flute End Mill with 1/4" Shank 3/8" Dia. 4 Flute End Mill with 3/8" Shank (6x00/8000)	\$50
10-1113-2000	3 Piece End Mill Set, Met	3 Piece End Mill Set, Metric 2mm Dia. 4 Flute End Mill with 3mm Shank 3mm Dia. 4 Flute End Mill with 3mm Shank 6mm Dia. 4 Flute End Mill with 6mm Shank (6x00/8000)	\$50
10-1113-7000	3 Piece Engraving Tool Set, Imp	3 Piece Engraving tool Set, Imperial Conical Nose Engraving Bit with 1/4" Shank 1/16" End Mill with 1/8" Shank 1/32" End Mill with 1/8" Shank (6x00/8000)	\$157
10-1113-6000	3 Piece Engraving Tool Set, Met	3 Piece Engraving Tool Set, Metric 1mm Dia. 4 Flute End Mill 3mm Shank 1.5mm Dia. 4 Flute End Mill 3mm Shank 2 mm Dia. 4 Flute End Mill 3mm Shank (6x00/8000)	\$157
10-1108-6000	7 Piece Engraving Tool Set, Met	7 Piece Engraving Tool Set, Metric (6mm) (6x00/8000)	\$200
10-1111-5000	58 Piece Clamping Kit	6x00 / 8000	\$175
10-1111-9000	ISO20 Tool Holder with Nut (6x00/8000)	6x00 / 8000	\$360
10-1108-1110	Coolant System - 110 VAC	6x00 / 8000	\$407
10-1108-1220	Coolant System - 220 VAC	6x00 / 8000	\$407
10-1108-8000	100 mm(4") Rotary Worktable(4th axis) with tailstock	4th Axis Rotary Positioner with Tailstock (6x00/8000) *requires chuck	\$2,125
10-1109-3000	3-Jaw Chuck for Rotary Table, 80mm (3 1/8")	3-Jaw Chuck for Rotary Positioner, 80 mm (3 1/8") (6x00 / 8000)	\$186
10-1105-5000	Machine Mounted Monitor/CPU stand (8000/9000)	8000 Only	\$313
10-1106-3000	4-Jaw Chuck for Rotary Table, 80mm (3 1/8")	4-Jaw Chuck for Rotary Positioner, 80 mm (3 1/8") (6x00 / 8000)	\$200
10-4526-0000	Basic Air Compressor and Conditioning System	6x00 / 8000	\$938
10-4527-0000	Quiet Ind. Air Compressor and Cond. System	Quiet Operation Industrial Air Compressor and Conditioning System (6x00/8000)	\$3,125
10-5590-0000	Mobile workbench w/ Storage Cab. 60" (1.5m) long	Mobile workbench with Storage Cabinet, 60" (1.5m) long x 30" (0.76m) deep x 31" (0.79m) high (6x00)	\$2,400
10-5591-0000	Mobile workbench w/ 3 Drawer 60"(1.5m) long	Mobile workbench with 3 Drawer storage 60" (1.5m) long x 30" (0.76m) deep x 31" (0.79m) high. Desk Style with 3 drawer cabinets. (6x00)	\$2,400
10-5592-0000	Mobile workbench w/ 3 Drawer Storage 96"(2.4m) long	Mobile workbench with 3 Drawer Storage 96" (2.4m) long x 30" (0.76m) deep x 31" (0.79m) high. Desk Style (6x00)	\$2,700

Accessories for Turning Center (7000/9000)

10-1106-6000	Rolling Cent. Tailstock MT2 taper (7x00/9000)	7x00/9000	\$87
10-1105-7000	Tailstock Chuck MT2 taper 0-1/2" (13mm) (7x00 / 9000)	7x00/9000	\$74
10-1110-1000	7 Piece Turning Tool Set with Inserts 10x10 mm	Tin Coated Cutter with Inserts (7x00/9000)	\$227
10-1110-2000	7 Piece Insert Replacement Set	Insert replacements for 7 piece set 10-1110-1000 (7x00/9000)	\$200
10-1106-7000	4 Jaw Chuck with 3.9"(100mm) flange	4 Jaw Chuck with 3.9" (100mm) flange with key (7x00 only)	\$286
10-1111-1000	Jog Pendant Handwheel	Jog Pendant Handwheel Control (7x00/9000)	\$795
10-1108-1110	Coolant System - 110 VAC	7x00/9000	\$407
10-1108-1220	Coolant System - 220 VAC	7x00/9000	\$407
10-1105-9000	4 Jaw Chuck with 4.9" (125mm) flange	4 Jaw Chuck with 4.9" (125mm) flange with key (9000 only)	\$244
10-4526-0000	Basic Air Compression. and Condit. System	Basic Air Compressor and Conditioning System 7x00/9000	\$938
10-4527-0000	Quiet Ind. Air Compression. and Condit. System	Quiet Operation Industrial Air Compressor and Conditioning System (7x00/9000)	\$3,125
10-1106-5000	Follow Rest (9000)	9000 only	\$107
10-1106-4000	Steady Rest (9000)	9000 only	\$134
10-1105-5000	Machine Mounted Monitor/CPU stand (8000/9000)	9000 only	\$313
10-5590-0000	Mobile workbench w/ Storage Cab. 60" (1.5m) long	Mobile workbench with Storage Cabinet, 60" (1.5m) long x 30" (0.76m) deep x 31" (0.79m) high (7x00)	\$2,400
10-5591-0000	Mobile workbench w/ 3 Drawer 60"(1.5m) long	Mobile workbench with 3 Drawer storage 60" (1.5m) long x 30" (0.76m) deep x 31" (0.79m) high. Desk Style with 3 drawer cabinets (7x00).	\$2,400
10-5592-0000	Mobile workbench w/ 3 Drawer 96" (2.4m) long	Mobile workbench with 3 Drawer Storage 96" (2.4m) long x 30" (0.76m) deep x 31" (0.79m) high. Desk Style (7x00)	\$2,700

Accessories for FMS (Combination with ER Robotic Arm)

10-1110-7000	Dual Axis Pneumatic Vise	6x00 / 8000	\$740
10-1110-8000	Single Axis Pneumatic Vise	6x00 / 8000	\$586
10-1110-9000	Pneumatic Air Chuck(7x00)	7x00 only	\$1,895
10-1111-0000	Pneumatic Air Chuck(9000)	9000 only	\$2,126
10-1110-4000	Pneumatic Shield Opener(8000)	8000 only	\$1,334
10-1110-5000	Pneum. Shield Opener with Sens.(7x00)	Pneumatic shield opener with sensors (7x00 only)	\$534
10-1110-6000	Pneum. Shield Opener with Sens.(9000)	Pneumatic shield opener with sensors (9000 only)	\$1,595

Curriculum (Requires LMS Add On)

CNC Curriculum

77-3140-0001	Virtual. CNC Milling w/BenchMill 6x00(I)	Imperial version.15 hours of virtual instruction in CNC based on the BenchMill 6X00. LM7 content. Includes CNCMotion simulation software launched from within LearnMate.	\$2,995
77-3140-0002	Virtual. CNCMilling w/BenchMill 6x00(M)	Metric Version. 15 hours of virtual instruction in CNC based on the BenchMill 6X00. LM7 content. Includes CNCMotion simulation software launched from within LearnMate.	\$2,995
77-3141-0001	Virtual., CNC Turning w/BenchTurn 7x00(I)	Imperial version. 15 hours of virtual instruction in CNC based on the BenchTurn 7x00. LM7 content. Includes CNCMotion simulation software launched from within LearnMate.	\$2,995
77-3141-0002	Virtual., CNC Turning w/BenchTurn 7x00(M),	Metric version 15 hours of virtual instruction in CNC based on the BenchTurn 7x00. LM7 content. The CNC turning technology course introduces the student to the use of BenchTurn 7x00. Includes CNCMotion simulation software launched from within LearnMate.	\$2,995
77-3142-0001	Virtual., CNC Milling w/ProMill 8000(I)	Imperial version. 15 hours of virtual instruction in CNC, based on the ProMill 8000. LM7 content. Includes CNCMotion simulation software launched from within LearnMate.	\$2,995
77-3142-0002	Virtual., CNC Milling w/ProMill 8000 (M)	Metric Version. 15 hours of virtual instruction in CNC, based on the ProMill 8000. LM7 content. Includes CNCMotion simulation software launched from within LearnMate.	\$2,995
77-3143-0001	Virtual., CNC Turning w/ProTurn 9000(I)	Imperial version. 15 hours of virtual instruction in CNC, based on the ProTurn 9000. LMT content. Includes CNCMotion simulation software launched from within LearnMate.	\$2,995
77-3143-0002	Virtual., CNC Turning w/ProTurn 9000 (M)	Metric version. 15 hours of virtual instruction in CNC, based on the ProTurn 9000. LM7 content. Includes CNCMotion simulation software launched from within LearnMate.	\$2,995
77-8140-0001	Lab, CNC Milling w/BenchMill 6x00(I)	Imperial version. 15 hours of lab instruction in CNC based on the BenchMill 6X00. LM7 content. Includes CNCMotion simulation software launched from within the curriculum. Requires the BenchMill 6x00.	\$2,495
77-8140-0002	Lab, CNCMilling w/BenchMill 6x00(M)	Metric version. 15 hours of lab instruction in CNC based on the BenchMill 6X00. LM7 content. Requires the BenchMill 6x00.	\$2,495
77-8141-0001	Lab, CNC Turning w/BenchTurn 7x00(I)	Imperial version. 15 hours of lab instruction in CNC. LM7 content. Requires the BenchTurn 7x00.	\$2,495
77-8141-0002	Lab, CNC Turning w/BenchTurn 7x00(M)	Metric Version. 15 hours of lab instruction in CNC. LM7 content. Requires the BenchTurn 7x00.	\$2,495
77-8142-0001	Lab, CNC Milling w/ProMill 8000(I)	Imperial version. 15 hours of lab instruction in CNC. LM7 content. Requires the ProMill 8000.	\$2,495
77-8142-0002	Lab, CNC Milling w/ProMill 8000 (M)	Metric Version. 15 hours of lab instruction in CNC. LM7 content. Requires the ProMill 8000.	\$2,495
77-8143-0001	Lab, CNC Turning w/ProTurn 9000(I)	Imperial version. 15 hours of lab instruction in CNC. LM7 content. Requires the ProTurn 9000.	\$2,495
77-8143-0002	Lab, CNC Turning w/ProTurn 9000 (M)	Metric version. Imperial version. 15 hours of lab instruction in CNC. LM7 content. Requires the ProTurn 9000.	\$2,495
77-3004-0001	Virtual, CAD with SpectraCAD Engraving(I)	Imperial version. 15 hours of virtual instruction in Computer Aided Drafting (CAD) with spectraCAD Engraving. LM7 content. Includes SpectraCAD/Engraving Software.	\$2,995
77-3004-0002	Virtual, CAD with SpectraCAD Engraving (M)	Metric version. 15 hours of virtual instruction in Computer Aided Drafting (CAD) with spectraCAD Engraving. LM7 content. Includes SpectraCAD/Engraving Software.	\$2,995
77-3005-0001	Virtual., SpectraCAM Milling (I)	Imperial version. 15 hours of virtual instruction in Computer Aided Manufacturing (CAM) milling. LM7 content. Includes CAM Software.	\$2,995
77-3005-0002	Virtual., SpectraCAM Milling (M)	Metric version. 15 hours of virtual instruction in Computer Aided Manufacturing (CAM) milling . Includes CAM Software.	\$2,995
77-3007-0001	Virtual., spectraCAM Turning (I)	Imperial version. 15 hours of virtual instruction in Computer Aided Manufacturing (CAM) turning. Includes CAM Software.	\$2,995
77-3007-0002	Virtual., spectraCAM Turning (M)	Metric version. 15 hours of virtual instruction in Computer Aided Manufacturing (CAM) turning. Includes CAM Software.	\$2,995
77-3144-0001	Lab, CNC Program. w/ FANUC Controller (Milling)	6 hours of lab instruction. Lab, CNC Programing with FANUC Controller(Mill). LM7 Content	\$595
77-3146-0001	Lab, CNC Program. w/ FANUC Controller (Turning)	6 hours of lab instruction. CNC Programing with FANUC Controller (Turn). LM7 Content	\$595

FMS Curriculum- Requires LearnMate (add on). *See LearnMate tab.

77-3022-0000	FMS Curriculum	15 hours of virtual instruction in Flexible Manufacturing Systems including virtual experience with Educational Robot and CNC.	\$2,995
77-3015-0000	CIM I Curriculum	15 hours of virtual instruction in Computer Integrated Manufacturing. Includes OpenCIM virtual software and CIM Cell set up when launched within LearnMate	\$2,995
77-3016-0000	CIM II Curriculum	15 hours of virtual instruction in Computer Integrated Manufacturing. Includes OpenCIM virtual software and CIM Cell set up when launched within LearnMate	\$2,495

CNC Software & Projects

CNC Software- can be purchased as stand alone.

63-6001-2000	CNCMotion & Design Software Pkg, 1 Seat License	1- Seat License of FANUC Simulator with CNCMotion On-line Control and Virtual Simulation Software, SpectraCAM Milling software, SpectraCAM Turning Software and SpectraCAD Engraving software. (6x00/7000/8000/9000) - Download Only	\$500
63-6001-2010	CNCMotion & Design Softwre Pkg, 10 Seat License	10 -Seat License of FANUC Simulator with CNCMotion On-line Control and Virtual Simulation Software, SpectraCAM Milling software, SpectraCAM Turning Software and SpectraCAD Engraving software. (6x00/7000/8000/9000) - Download Only (6x00/7000/8000/9000) - Download Only	\$1,495
63-6001-2030	CNCMotion & Design Software Pkg, 30 Seat License	30 -License of FANUC Simulator with CNCMotion On-line Control and Virtual Simulation Software, SpectraCAM Milling software, SpectraCAM Turning Software and SpectraCAD Engraving software. (6x00/7000/8000/9000) - Download Only (6x00/7000/8000/9000) - Download Only	\$1,995
63-2000-VCRV	Vcarve Pro CNC Software	Vcarve Pro CNC Software, 1 Seat (30 seats if used for education - see 34-1000-VCRV)	\$700

CNC Projects			
10-9307-0000	Brass Cannon Project	Project Kit to complete production of one Brass Cannon (6x00/8000/7000/9000)	\$160
CNC-PROJ-CO2	CO2 Car Project	This project is based on the design and manufacture of a CO2 car. Includes consumable replacement package for 50 students (6x00/8000)	\$3,529
10-9301-0000	CO2 Car- Additional Materials	Consumables for CO2 car project, 50 student package.	\$700
CNC-PROJ-PUTT	Golf Putter Project	This project challenges students to manufacture a golf putter. Includes consumable replacement package for 50 students (6x00/8000)	\$5,795
10-9302-0000	Golf Putter- Additional Materials	Consumables for Golf Putter project, 50 student package	\$4,000
CNC-PROJ-PMD	Precision Measuring Device Project	In this project, students design a device with software design programs and create it using automated industrial machines. Includes consumable replacement package for 50 students (6x00/8000)	\$729
CNC-PROJ-YOYO	Yo-Yo Project	This project challenges students to design and manufacture a Yo-Yo using plastics technology(6x00/8000). Includes consumable replacement package for 50 students	\$5,600
10-9603-0000	Sterling Engine Project	Project Kit to complete production of one Sterling Train Engine (6x00/8000)	\$200
10-7551-0000	Chess Set Project	Students create all the pieces for a full chess set using CAD, CAM, and CNC technologies. Includes consumables for 1 Chess set (7000/9000)	\$600
CNC-PROJ-4CAV	4-Cavity Mold Project	Students create a 4 cavity mold using CAD, CAM, and CNC technologies based on a rough dimensioned, concept drawing for the prototype. This mold has a three plate concept and the students goal is to machine this mold prototype as quickly and efficiently as possible. Includes LearnMate e-Learning Content Four Cavity Mold project with teacher supplement and one complete documented solution. (Does not include stock or tooling) (6x00/8000)	\$195
CNC-PROJ-PLAN	Planetary Gearbox Project	Students create a Planetary gearbox using CAD, CAM, and CNC technologies based on a rough dimensioned, concept drawing for the prototype. This fully functional gearbox consists of 5 meshing gears within a multi-pieced housing. The students goal is to machine this gearbox prototype as quickly and efficiently as possible. Includes LearnMate e-Learning Content Planetary Gear Box project with teacher supplement and one complete documented solution. (Does not include stock or tooling) (6x00/8000)	\$390
CNC Material Supplies (Raw materials for CNC classes)			
10-9130-0000	Aluminum for Milling 50Pieces	Aluminum for Milling , 3" (76mm) x 1.5" (38mm) x 0.25" (0.6 mm) - 50 Pieces	\$265
10-9160-0000	Name Badge 50 Pieces	Name Badge , 3" (76mm) x 1.5" (38mm) x 0.125" (0.3 mm) comes with a pin attachment - 50 Pieces	\$395
10-9170-0000	Name Plate 50 Pieces	Name Plate , 8" (200mm) x 1.5" (38mm) x 0.125" (0.3 mm) - 50 Pieces	\$250
10-9120-0000	Machinable Wax for Milling 50 Pieces	Machinable Wax for Milling S, 3" x 2" x 1.5" (76mm x 50mm x 38mm) - 50 Pieces	\$657
10-9350-0000	Machinable Wax for Turning 20 Pieces	Machinable Wax for Turning . 1" (25mm) diameter x 12" (305mm) long - 20 pieces	\$400
10-9140-0000	Brass rod for Turning 50 Pieces	Brass Turning , 50 Pieces, 3/4" (19mm) diameter x 3" (76mm) long	\$1,250
10-9360-0000	Chess Set	Consumable Material for 1 complete Chess Set	\$907
10-9330-0000	Delrin for Turning 50 pieces	Delrin Turning , 50 Pieces, 3/4" (19mm) diameter x 3" (76mm) long.	\$267
10-9340-0000	Delrin for Turning 72 Pieces	Delrin Turning Stock, 50 Pieces, Assorted Sizes: White Delrin 1/2"x 2" (20 pcs); 3/4" x 2" (20 pcs); 3/4" x 3" (16 pcs); 1/2" x 3" (16 pcs).	\$267
Plastics Technology			
PL-THERMO-FRM	Plastics Technology Package	All in one compact training center emulates six basic plastic processes: Vacuum forming, Free dome blowing, Plastic welding, Plastic drip coating, Injection molding and Extrusion. NOT STOCKED, Please allow 18 Weeks for delivery. Includes Thermoforming center, 15 hours of lab instruction in each of the 6 processes and safety LM7 content, Consumable materials.	\$27,595
10-9401-0000	Polystyrene Sheet 12" x 12" 20 pack	Consumables	\$100
10-9402-0000	Polystyrene Sheet 12" x 6" 20 pack	Consumables	\$67
10-9403-0000	Cast Acrylic Sheet 8" x 8" (2 pack)	Consumables	\$67
10-9404-0000	Cast Acrylic Sheet 11" x 11" (2 pack)	Consumables	\$67
10-9405-0000	Cast Acrylic Sheet 14" x 14" (2 pack)	Consumables	\$99
10-9406-0000	Polypropylene Sheet 7"x 3" (25 Pack)	Consumables	\$134
10-9407-0000	Polypropylene Rod 3mm, 2 LBS	Consumables	\$300
10-9408-0000	Polystyrene Granules 6 LBS	Consumables	\$240
10-9409-0000	Nylon Powder 4 LBS (injection molding)	Consumables	\$1,035
10-9411-0000	Polyethylene Powder, 4 LBS	Consumables	\$147

Machining: Routers, and Plasmas

Part Number	Name	Description	2018 MSRP
CNC Router and Plasma Bundles			
CNC Router Bundles			
CNC-1000-STND	BenchRouter 1000 Starter Bundle 110V	BenchRouter 1000 (24"x16" MDF cutting area): 800W high speed spindle, USB connection, Mach3 Control Software, Shop Vacuum & Dust Foot, Starter Bit Kit; 1 seat of VCarve Pro (40 Seats for education); 2 spare pieces of 24" x 16" MDF; 8 hours of "Getting Started Curriculum " (Perpetual); G-code Projects. The Router includes a full 2-year warranty. REQUIRES LMS ADD-On. Specify on the order 110V or 220V. Substitutions Available: 1-Year Leased Course (Subtract \$700 from MSRP)	\$9,347
CNC-1000-STND-2	BenchRouter 1000 Starter Bundle 220V	BenchRouter 1000 (24"x16" MDF cutting area): 800W high speed spindle, USB connection, Mach3 Control Software, Shop Vacuum & Dust Foot, Starter Bit Kit; 1 seat of VCarve Pro (40 Seats for education); 2 spare pieces of 24" x 16" MDF; 8 hours of "Getting Started Curriculum " (Perpetual); G-code Projects. The Router includes a full 2-year warranty. REQUIRES LMS ADD-On. Specify on the order 110V or 220V. Substitutions Available: 1-Year Leased Course (Subtract \$700 from MSRP)	\$9,347
CNC-2000-STND	ProRouter 2000 Starter Bundle 110 V	ProRouter 2000 (4' x 4' MDF cutting area): 110V, 3.25HP Porter Cable Router , Desktop Computer with Windows 7 Professional, 19" LED Monitor, USB Keyboard/Optical Mouse, Ethernet Connection, Mach3 Control Software, 10 piece starter bit kit, 220V 2Hp 30 micron dust collector & dust foot, MTC Z Setter, 1 seat of VCarve Pro (40 Seats for education); 2 spare pieces of 4'x4'MDF; 8 hours of "Getting Started Curriculum"; G-code Projects. The Router includes a full 2-year warranty. REQUIRES LMS ADD-On. Substitutions Available: 1-Year Leased Course (Subtract \$700 from MSRP)	\$19,330
CNC-2000-STND-2	ProRouter 2000 Advanced Bundle 220 V	ProRouter 2000 (4' x 4' MDF cutting area): 220V, HSD 3kw Spindle , Desktop Computer with Windows 7 Professional, 19" LED Monitor, USB Keyboard/Optical Mouse, Ethernet Connection, Mach3 Control Software, 10 piece starter bit kit, 220V 2Hp 30 micron dust collector & dust foot, MTC Z Setter, 1 seat of VCarve Pro (40 Seats for education); 2 spare pieces of 4'x4'MDF; 8 hours of "Getting Started Curriculum"; G-code Projects. 220V. The Router includes a full 2-year warranty. REQUIRES LMS ADD-On. Substitutions Available: 1-Year Leased Course (Subtract \$700 from MSRP)	\$22,958
CNC-2100-STND	ProRouter 2100 Starter Bundle 110V	ProRouter 2100 (4' x 8' MDF cutting area): 110V, 3.25HP Porter Cable Router , Desktop Computer with Windows 7 Professional, 19" LED Monitor, USB Keyboard/Optical Mouse, Ethernet Connection, Mach3 Control Software, 10 piece starter bit kit, 220V 2Hp 30 micron dust collector & dust foot, MTC Z Setter, 1 seat of VCarve Pro (40 Seats for education); 2 spare pieces of 4'x8'MDF; 8 hours of "Getting Started Curriculum"; G-code Projects. The Router includes a full 2-year warranty. REQUIRES LMS ADD-On. Substitutions Available: 1-Year Leased Course (Subtract \$700 from MSRP)	\$21,939
CNC-2100-STND-2	ProRouter 2100 Advanced Bundle 220V	ProRouter 2100 (4' x 8' MDF cutting area): 220V, HSD 3kw Spindle , Desktop Computer with Windows 7 Professional, 19" LED Monitor, USB Keyboard/Optical Mouse, Ethernet Connection, Mach3 Control Software, 10 piece starter bit kit, 220V 2Hp 30 micron dust collector & dust foot, MTC Z Setter, 1 seat of VCarve Pro (40 Seats for education); 2 spare pieces of 4'x8'MDF; 8 hours of "Getting Started Curriculum"; G-code Projects. The Router includes a full 2-year warranty. REQUIRES LMS ADD-On. Substitutions Available: 1-Year Leased Course (Subtract \$700 from MSRP)	\$25,567
CNC Router and Plasma Machines			
CNC Routers			
00-6118-0000	ProRouter (30"x30" MDF Cutting Area)	ProRouter (30" x 30" MDF cutting area): 3.25HP Porter Cable Router, Desktop Computer with Windows 7 Professional, 19" LED Monitor, USB Keyboard/Optical Mouse, Ethernet Connection, Mach3 Control Software, MTC ZSetter, 10 piece starter bit kit, dust foot, 1 seat of VCarve Pro (40 Seats for education); 110V. The Router includes a full 2-year warranty.	\$14,540
00-2044-0220	ProRouter 2000 (4'x4' MDF Cutting Area)	ProRouter 2000 (4' x 4' MDF cutting area): 3.25HP Porter Cable Router, Desktop Computer with Windows 7 Professional, 19" LED Monitor, USB Keyboard/Optical Mouse, Ethernet Connection, Mach3 Control Software, MTC ZSetter, 10 piece starter bit kit, dust foot, 1 seat of VCarve Pro (40 Seats for education); 110V. The Router includes a full 2-year warranty.	\$17,300
00-2048-0220	ProRouter 2100 (4'x8' MDF Cutting Area)	ProRouter 2100 (4' x 8' MDF cutting area): 3.25HP Porter Cable Router, Desktop Computer with Windows 7 Professional, 19" LED Monitor, USB Keyboard/Optical Mouse, Ethernet Connection, Mach3 Control Software, MTC ZSetter, 10 piece starter bit kit, dust foot, 1 seat of VCarve Pro (40 Seats for education); 110V. The Router includes a full 2-year warranty.	\$19,848
00-6116-0000	ProRouter (5'x10' MDF Cutting Area)	ProRouter (5' x 10' MDF cutting area): 3.25HP Porter Cable Router, Desktop Computer with Windows 7 Professional, 19" LED Monitor, USB Keyboard/Optical Mouse, Ethernet Connection, Mach3 Control Software, MTC ZSetter, 10 piece starter bit kit, dust foot, 1 seat of VCarve Pro (40 Seats for education); 110V. The Router includes a full 2-year warranty.	\$23,830

CNC Router Upgrades			
Upgrades for Routers (These must be ordered with a ProRouter)			
10-6100-0007	HSD 3kw Spindle	3Kw manual tool change spindle (ER25 collet), Electric cooled fan, 18,000 RPM; 220V 3 Phase; 4.1 HP. Customer needs to provide power cord and plug ends/receptacles for these machines. Must order at time of ProRouter purchase.	\$3,628
10-6100-0033	HSD 4Kw Auto Tool Change Spindle - 3 Phase	ATC Spindle/ 4 position Tool Holder(ES330); 18,000 RPM, 220v 3Phase, 5.5 HP All 220 volt spindle equipped table are shipped with no power cord to machines. Customer needs to provide power cords and plug ends/receptacles for these machines. Must order at time of ProRouter purchase.	\$11,550
10-6100-0043	HSD 4Kw Auto Tool Change Spindle - Single Phase	ATC Spindle/ 4 position Tool Holder(ES330), 24,000 RPM, 220vSingle Phase Conversion(VFD), 5.5 HP. All 220 volt spindle equipped table are shipped with no power cord to machines. Customer needs to provide power cords and plug ends/receptacles for these machines. Must order at time of ProRouter purchase.	\$13,750
10-6100-0053	T-Slot Extrusion Bed (30" x 30")	T-Slot Extrusion Bed 30" x 30". Aluminum extrusion bed for clamping parts. Does not include clamping kit.	\$941
10-6100-0051	30" x 30" Phenolic Vacuum Bed	30x30 Phenolic Vacuum Bed, 2" Mechanical Zones, All hardware and plumbing included. Requires Vacuum Pump (10-6100-0052).	\$1,059
10-6100-0050	30" x 30" T-Slot Vacuum Bed	30x30 T-Slot Aluminum Extrusion Vacuum Bed with 6" Wide Zones. Includes rubber stops. Requires Vacuum Pump (10-6100-0052).	\$2,553
10-6100-0008	4'x4' Vacuum Bed	Must order with a ProRouter. Requires Vacuum Pump (10-6100-0028 or 10-6100-0010).	\$2,090
10-6100-0011	T-Slot Extrusion Bed (4'x8')	T-Slot Extrusion Bed 4'x8'. Aluminum extrusion bed for clamping parts. Does not include clamping kit.	\$2,464
10-6100-0012	Clamping Kit for Vacuum T-Slot Table	Clamping Kit for Vacuum T-Slot Table. Includes (3) CAM clamps with 1"x1/4" button head screw, (3) each hold down clamps, and (2) each bar clamps.	\$495
10-6100-0009	4'x8' Vacuum Bed	Phenolic Vacuum Bed - 4ft x 8ft; Features: 2" Mechanical Zones, All Hardware and Plumbing included. Must order with a ProRouter 2100 Bundle. Requires Vacuum Pump (10-6100-0028 or 10-6100-0010).	\$3,300
10-6100-0045	5' x 10' Aluminum Vacuum Bed	5ft x 10ft Aluminum Vacuum Bed. Includes all plumbing and hardware for easy connection- Vacuum pump ready; 4 Zones with manual on/off valves. Requires Vacuum Pump (10-6100-0046).	\$5,160
10-6100-0052	5hp Vacuum Pump	5HP Regenerative Vacuum Pump, 220V 3 Phase; For material hold down, not dust collection.	\$2,118
10-6100-0028	8.5hp Vacuum Pump	Regenerative 8.5HP, 220V 3-Phase pump for material hold down, not dust collection. To be used with Vacuum Bed.	\$2,983
10-6100-0010	15hp Vacuum Pump	Regenerative 15HP, 220V 3-Phase pump for material hold down. Pressure: 248 in H2O; Vacuum: 158 in H2O; Air Flow: 353 cfm; Weight: 366 lbs. To be used with Vacuum Bed.	\$7,150
10-6100-0046	20hp Vacuum Pump	Regenerative 20HP, KVHRB-1200, 220V 3 Phase. For material hold down not dust collection. Pressure: 106 in H2O; Vacuum: 114 in H2O; Air flow: 706 cfm; Weight: 476 lbs.	\$10,535
CNC Router Optional Accessories			
Accessories for ProRouters			
10-1200-1000	BenchRouter 1000 Shield	Plastic plexi-glass enclosure shield with handles for the BenchRouter 1000.	\$550
10-6100-0004	4th Axis Rotary (4" Diameter)	Features: Allows efficiently produced shapes and letters. Manually sets up to 4" external chuck; Cantilever design - mounted to routing machine. Dual direction rotation	\$2,195
10-6100-0005	Acrylic Bit Kit	Includes: (1) 63-727 1/4" Solid carbide one flute upcut O flute for hard plastics, (1) 52-624 1/4" Solid carbide two flute upcut, (1) 52-650 1/2" solid carbide two flute upcut, (1) 52-707 1/4" solid carbide two flute upcut, (1) 52-702 1/2" solid carbide two flute upcut, (1) 63-794 1/4" solid carbide one flute upcut o flute, and (1) 63-776 1/4" solid carbide one flute upcut o	\$424
10-6100-0006	Aluminum Bit Kit	Includes: (1) 63-626 3/8" solid carbide one flute upcut O flute, (1) 63-622 1/4" solid carbide one flute upcut O flute, (1) 52-160 1/4" solid carbide one flute upcut O flute, (1) 52-120 3/8" solid carbide two flute upcut, (1) 52-080 1/4" solid carbide two flute upcut, (1) AMC700756 1/4" solid carbide two flute medium length upcut endmill with .015" radius, and (1) AMC700406 AFS-20625 2FLT RAD .015 for aluminum.	\$468
10-6100-0029	7 Piece Router Bit Kit	7 Piece Bit Kit - Includes 7 Assorted Router Cutting Bits: 37-61 1/2" Carbide Tipped Two Flute Up-Shear Flute for V-grooving or beveling 90 degrees, 48-005 1/4" Carbide Tipped one Flute Straight V Flute, 48-076 1/2" Carbide Tipped Two Flute Straight V Flute, 57-080 1/4" Solid Carbide Two Flute Downcut. For Aluminum and Composite Plastics, 52-080 1/4" Solid Carbide Two Flute Upcut. For Solid Surface, Aluminum, and Composites. 63-725 1/4" Solid Carbide One Flute Upcut O Flute. For Hard Plastics. 91-000 Carbide Tipped Straight Spoilboard Cutter. Aluminum, Plastics, Wood, Collets: 1/4", 3/8", and 1/2"	\$206
10-6100-0030	10 Piece Router Bit Kit	10 Piece Bit Kit - Includes: 2pc 52-280 1/4" Solid Carbide Two Flute Upcut, 1pc 37-50 3/16" Solid Carbide Two Flute Up-shear V Flute For V-Grooving or Beveling 90°, 1pc 37-61 1/2" Carbide Tipped Two Flute Up-shear V Flute For V-Grooving or Beveling 90°, 1pc 52-235B 1/16" Solid Carbide Two Flute Upcut Ballnose, 1pc 52-240B 1/8" Solid Carbide Two Flute Upcut Ballnose, 1pc 52-240 1/8" Solid Carbide Two Flute Upcut, 1pc 52-330 3/8" Solid Carbide Two Flute Upcut, 1pc 65-000 1/16" Solid Carbide One Flute Upcut Super O Flute, and 1pc 91-000 Carbide Tipped Straight Spoilboard Cutter	\$413
10-6100-0031	PC Controller with Maverick Operating System	PC Controller with Maverick Operating System, INCLUDES: 19 INCH WIDE Monitor, Keyboard and Laser Mouse, AMDA 6 - 3.9 GHz, 8 Gigabytes DDR3 Memory, 120 Gig solid state Hard Drive, DVD-RW Drive, 4 USB 2.0 Ports, 2 USB 3.0 Ports, Video output- VGA, DVI, and HDMI, All fully interfaced and tested with Customer's Machine	\$1,537
10-6100-0035	Dust Foot	Aluminum Dust foot with brushes and connection for a 4" Dust hose	\$342
10-6100-0001	220V 2Hp 30 micron dust collector	220V 2Hp 30 micron dust collector. This dust collector is equipped with a 2-horsepower motor and a heavy-duty, 12-inch steel impeller that moves 1,550 cubic feet of air every minute. Each bag measures 33 inches high and 19 inches in diameter and has a volume of 5.4 cubic feet.	\$658
10-6100-0013	Kufo Med to High Range Dust Collector	The notable bag measures 31 1/2 inches high and 19 inches in diameter. (4 bags) Kufo Med to High Range Dust Collector. 220V - 3 Phase with 2.2kw (3HP) motor. Air volume is 1925 CFM. Measures: 48" x 23" x 23".	\$1,975
10-6100-0002	2 spare pieces of 4'x4' MDF	2 spare pieces of 4'x4' MDF	\$77
10-6100-0003	2 spare pieces of 4'x8' MDF	2 spare pieces of 4'x8' MDF	\$138
10-6100-0032	3.25 HP Porter Cable Router	3.25 HP Porter Cable Router Features: 15 Amps, AC only, Electronic five-speed with soft start (10000, 13000, 16000, 19000, 21,000 RPM), maintains speed during use. 1/2in. Collet, auto-release collet system ends frozen bits. Includes: Speedmatic 3 1/4 Peak HP Five-Speed Router, Base, 1/2in. Collet, Collet Wrenches, and Operating Manual.	\$474
10-6100-0042	Manual Tool Change (MTC) Z Setter	Manual Tool Change; FEATURES: Z Setter Touch Plate for regular router applications. Use with Porter cable.	\$219
10-6100-0034	ATC Tool Length Sensor	Features: Automatic Tool Changer used for all spindles with ceramic bearings to include both auto tool change and manual tool change spindles. Provides switch type touch off to set the tool length for the Z axis.	\$1,320
Plasma Cutter Accessories			
Power Supplies for JobMaster Plasma Cutter Pro (25ft Leads)			
10-6100-0014	Hypertherm Powermax 45XP - 25ft Leads	The Powermax 45 XP delivers increased cut capacity up to 1/4", 16mm thickness. CNC Interface and Fast Connect torch connection allows both handheld and mechanized operation as well as faster cut speeds, and automatic gas adjustment for quick, simple setup and operation. Cut Capacity: 1/4", 6mm	\$1,957
10-6100-0015	Hypertherm Powermax 65 - 25ft Leads	The Powermax 65 uses plasma to melt metal and dry compressed air or nitrogen to blow the molten metal away, leaving a good quality cut edge, ready to accept most welds. Cut Capacity: 3/8", 10mm	\$3,483
10-6100-0016	Hypertherm Powermax 85 - 25ft Leads	The Powermax 85 uses plasma to melt metal and dry compressed air or nitrogen to blow the molten metal away, leaving a good quality cut edge, ready to accept most welds. Cut Capacity: 1/2", 12mm	\$4,429
10-6100-0017	Hypertherm Powermax 105 - 25ft Leads	The Powermax 105 uses plasma to melt metal and dry compressed air or nitrogen to blow the molten metal away, leaving a good quality cut edge, ready to accept most welds. Cut Capacity: 3/4", 20mm	\$5,784
10-6100-0018	Hypertherm Powermax 125 - 25ft Leads	The Powermax 125 cuts at 100% Duty Cycle. New Smart Sense technology automatically adjusts the gas pressures according to cutting mode and torch lead lengths. The Powermax 125 also detects electrode end-of-life, automatically turning off power to the torch to prevent potential damage to other parts of the work piece. Cut Capacity: 1", 25mm	\$7,891

Plasma Cutter Consumable Kits for Hypertherm Powermax Power Supplies

10-6100-0036	Hypertherm Power Max 45 Consumable Kit	Hypertherm Power Max 45 Consumable Kit includes: (2) ea. Swirl ring 45/65/85, (6) ea. Electrode 45 A-105A, (2) ea. Nozzle 45 A, (2) ea. Nozzle 65 A, (2) ea. Nozzle 45 A Fine Cut, (2) ea. Nozzle 65/85 Gouging, (1) ea. Retaining Cap 45/65/85 A, (1) ea. Retaining Cap 45/65/85 A Mech, (1) ea. Shield 45/65/85 A Mechanized, (1) ea. Shield 45 A Gouging, and (1) ea. Deflector 45/65/85 A Mech, unshielded.	\$237
10-6100-0037	Hypertherm Power Max 65 Consumable Kit	Hypertherm Power Max 65 Consumable Kit includes: (2) ea. Swirl ring 45/65/85, (6) ea. Electrode 45 A-105A, (2) ea. Nozzle 45 A, (2) ea. Nozzle 65 A, (2) ea. Nozzle 45 A Fine Cut, (2) ea. Nozzle 65/85 Gouging, (1) ea. Retaining Cap 45/65/85 A, (1) ea. Retaining Cap 45/65/85 A Mech, (1) ea. Shield 45/65/85 A Mechanized, (1) ea. Shield 45 A Gouging, and (1) ea. Deflector 45/65/85 A Mech, unshielded.	\$247
10-6100-0038	Hypertherm Power Max 85 Consumable Kit	Hypertherm Power Max 85 Consumable Kit includes: (2) ea. Swirl ring 45/65/85, (6) ea. Electrode 45 A-105A, (2) ea. Nozzle 45 A, (2) ea. Nozzle 65 A, (2) ea. Nozzle 85 A, (2) ea. Nozzle 45 A Fine Cut, (2) ea. Nozzle 65/85 Gouging, (1) ea. Retaining Cap 45/65/85 A, (1) ea. Retaining Cap 45/65/85 A Mech, (1) ea. Shield 45/65/85 A Mechanized, (1) ea. Shield 45 A Gouging, and (1) ea. Deflector 45/65/85 A Mech, unshielded.	\$247
10-6100-0039	Hypertherm Power Max 105 Consumable Kit	Hypertherm Power Max 105 Consumable Kit includes: (1) ea. Swirl Ring 105A, (3) ea. CopperPlus Electrode, (4) ea. Electrode, (1) ea. Mechanized Cutting Nozzle 65A, (1) ea. Mechanized Cutting Nozzle 85A, (5) ea. Mechanized Cutting Nozzle 105A, (1) ea. Ohmic retaining cap, (1) ea. Mechanized Cutting Shield 65-85A, (2) ea. Mechanized Cutting Shield 105A.	\$252
10-6100-0040	Hypertherm Power Max 125 Consumable Kit	Hypertherm Power Max 125 Consumable Kit includes: (1)ea. Swirl Ring, (6) ea. Electrode, (1) ea. Cutting Nozzle 65A, (1) ea. Cutting Nozzle 45 A, (4) ea. Cutting nozzle 125A, (1) ea. Ohmic Retaining Cap, (2) ea. Mechanized Shield 125 A, and (1) ea. Mechanized Shield 45/65 A.	\$286
10-6100-0041	5 Gal Bucket Plasma Green	Prevents corrosion, bacteria, hot spotting and doesn't thermally degrade, meaning no change-outs are required. Contains an6ti-rust, anti-foam, and6 anti-bact6erial chemistry. Mix with water at 20:1 ration (5% Solution). Download MSDS sheet here .	\$172

Plasma Cutter Optional Accessories

10-6100-0021	Hypertherm Air Filtration Kit	Hypertherm air filtration kits come with a 1-micron filter to protect Hypertherm Powermax plasma cutting systems against contaminated air and an auto-drain moisture separator that filters water and moisture from air lines. Differential pressure indicator, 1/4" port, Flow Capacity: 20 scfm @ 100 PSI.	\$323
10-6100-0022	Plasma Air Dryer/Filtration System	Plasma Air Dryer/Filtration System, 110 volts - recommend a 20 amp circuit.	\$1,719
10-6100-0020	Scribe	Scribe used to mark on mild steel, stainless or aluminum. Can be used on any thickness material, securely mounted and easily "offset" to any tool already mounted on the machine.	\$1,649
10-6100-0023	Pipe Rotary - Zero to 4" Chuck	Pipe Rotary - Zero to 4" Chuck, cantilever design, dual direction rotation, pipe jack support system, ESS set-up.	\$4,125
10-6100-0024	Pipe Rotary - Zero to 6" Chuck	Pipe Rotary - Zero to 6" Chuck, cantilever design, dual direction rotation, pipe jack support system, ESS set-up.	\$4,565
10-6100-0025	Heavy Duty Pipe Rotary - Floor Mounted (8")	8" Heavy Duty Floor-Mounted Rotary, manually set external chuck - 0-8" (external chucking), cantilever design, dual direction rotation, pipe jack support system, ESS set-up.	\$8,916
10-6100-0026	Laser Alignment	The laser alignment feature assists machine operators in determining where the cutting head is located in relation to the pierce point. This option is also a safety feature, the laser indicator helps to avoid this potential hazard.	\$548

Curriculum (Requires LMS Add On)

CNC Curriculum

77-8160-0001	LM7 Content, Lab, Intro to CNC Routers VCarve Pro	Express CNC Router Curriculum: includes 8 hours of express project-driven curriculum on CNC Routers, with 6 projects using VCarve Pro and Mach3 Control Software. Perpetual license	\$1,295
77-8160-0001-L	OL content, Intro to CNC Routers, 1 Year Lease	Express CNC Router Curriculum: includes 8 hours of express project-driven curriculum on CNC Routers, with 6 projects using VCarve Pro and Mach3 Control Software. Onlinelearning License (1 Year Leased Access)	\$595

CNC Software

CNC Software- can be purchased as stand alone.

63-8023-0000	Vectric Aspire 3D Software	Aspire 3D relief modeling and machining software for CNC routing and engraving projects such as carving decorative ornate panels and doors. Import 3-D files, STL, DXF, OBJ, SKIP, V3M, CRV3D, 3D CLIP. Moulding Toolpaths - to create constant cross Section profiles, arches, frames etc. VCarving and 3D Engraving Toolpath 2-D Profiling with interactive tab hold-down, leads, ramping and other. Installation DVD that Includes over 35 hours of high quality Video Training Tutorials and a 390+ page Reference Manual.	\$2,145
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Robotics

Part Number	Name	Description	2017 MSRP
Requires LMS Plus			
Scorbot Robotics			
ROB-ER4U-STND	SCORBOT-ER4u, Standard Package	Standard robotics hardware package for the ER4u. Includes: Scorbot ER4u, multi-purpose gripper for rectangular pieces, Teach Pendant for USB/USB Pro Controllers, I/O Experiment Table, Conveyor Belt w/Proximity sensor, Gravity Parts Feeder with MicroSwitch Sensor, Rotary Index Table (24V) w/ Proximity Sensor, Workbench with Formica Tabletop (1800mm L x 800mm W), RoboCell Control Software.	\$20,882
ROB-ER4U-ADV	SCORBOT-ER4u, Advanced Package & Quality Control Station	Advanced robotics hardware package for the ER4u. Includes: Scorbot ER4u, multi-purpose gripper for rectangular pieces, Teach Pendant for USB/USB Pro Controllers, I/O Experiment Table (includes blocks & shapes for experiments), Conveyor Belt w/Proximity sensor, Gravity Parts Feeder with MicroSwitch Sensor, Rotary Index Table (24V) w/ Proximity Sensor, ViewFlex Machine Vision (software, stand, camera & color PC), Parts Bin, Workbench with Aluminum Tabletop (1800mm L x 800mm W) & Adapter plate for ER4u, RoboCell Control Software.	\$26,917
Scorbot Project Bundles			
ROB-ER4U-MAT	Robotics & Material Handling I w/ER4U	In Robotics and Materials Handling 1 students work with SCORBASE software and the ER 4u Robot to develop and write robot programs for manipulating objects and other automated tasks as in a manufacturing environment. The RMH1 kit comes complete with a Scorbot ER 4u Robot (00-0413-0000); Teach Pendant (00-1710-0000); Conveyor Belt Tabletop (00-1010-0000); I/O Experiment table (00-1201-0000); Gravity Parts Feeder (10-1007-4000); Proximity Sensor (350001); Materials for handling (8"x 6"x 4" boxes, PVC Cylinder, 1.5" x 2" x 3" Wax stock pieces); Grey Totes (31-1402-0003); short and long dividers (31-1402-0001 and -0002); LM7 curriculum package.	\$19,153
RAT-ER4U-1000	Robotics Automation Technology Skills Project	Robotics and Automation Project includes complete project hardware components including: Scorbot-ER 4u, teach pendant, conveyor with sensor, stack light with emergency stop, I/O controller interface, gravity parts feeder for plastic & aluminum blocks (included), continuity and limit detection test device, SK-AUTO-0001 kit including Siemens LOGO! PLC, I/O expansion unit, LOGO!Soft Software, a 12VDC Power Supply. Needed cabling is Supplied.	\$18,404
RAT-ER4U-ACC1	Robotics Automation Project Parts	Robotics and Automation Project includes the following project hardware components: stack light with emergency stop, I/O controller interface, gravity parts feeder for plastic & aluminum blocks (included), continuity and limit detection test device, SK-AUTO-0001 kit including Siemens LOGO! PLC, I/O expansion unit, LOGO!Soft Software, a 12VDC Power Supply. Needed cabling is Supplied.	\$3,504
ROB-WELD-ER4U	Scorbot ER4u Welding LAB	15 hours of lab/virtual instruction for the SCORBOT-ER 4u. LearnMate® Content Automated Welding and all required materials including: SCORBOT-ER 4u, RoboCell simulation software, teach pendant, parts feeder, welding torch holder, extruded aluminum frame welding booth, welding fixtures, gripper adapter for ER 4u, filter plates (shade 10) for UV and EYE Protection, MIG Welder.	\$33,875
SCORBOT Robots			
00-0413-0000	Scorbot ER4u	SCORBOT-ER 4u (incl. USB Controller). Educational 5 axis open frame vertically articulated Robot	\$11,000

SCORBOT CURRICULUM - Requires LMS (Plus)

77-3046-0000	Scorbot-ER 4u Fundamentals	15 hours of virtual/lab instruction in the Fundamentals of Robotics for the Scorbot-ER 4u. LearnMate® Learning Management System. Includes RoboCell Simulation launched from LearnMate for Scorbot-ER 4u.	\$2,995
77-3048-0000	Scorbot-ER 4u Advanced	15 hours of virtual/lab instruction in Advanced Robotics Programming for the Scorbot-ER 4u. LearnMate® Learning Management System. Prerequisite: Fundamentals of Robotics	\$2,495
77-8082-0000	Scorbot-ER 4u Materials Handling I	15 hours of virtual/lab instruction in Advanced Materials Handling for the Scorbot-ER 4u. LearnMate® Learning Management System.	\$2,495
77-8083-0000	Scorbot-ER 4u Materials Handling II	15 hours of virtual/lab instruction in Advanced Materials Handling for the Scorbot-ER 4u. LearnMate® Learning Management System. Prerequisite: Materials Handling I for Scorbot-ER 4u	\$2,495
77-3001-0000	Scorbot-ER 4u Automated Welding	15 hours of virtual instruction in Automated Welding for the Scorbot-ER 4u. LearnMate® Learning Management System. Includes RoboCell Simulation launched from LearnMate for Scorbot-ER 4u	\$2,995

Scorbot Software

63-7000-0100	License Key for RoboCell Software; Single Seat	Single Seat License RoboCell virtual simulation control for the SCORBOT-ER 4u	\$500
63-7000-0110	License Key for RoboCell Software; Ten (10) Seat	Ten (10) Seat License RoboCell virtual simulation control for the SCORBOT-ER 4u	\$1,495
63-7000-0130	License Key for RoboCell Software; Thirty (30) Seat	Thirty (30) Seat License RoboCell virtual simulation control for the SCORBOT-ER 4u	\$1,995
63-7000-1300	Open CIM Offline	OpenCIM Offline software is a real time planning, manufacturing and 3D modelling tool that combines all of the stations in the CIM cell together, customized for each environment. OpenCIM has ERP, Manufacturing Execution System (MES) and 3D modelling built into the system.	\$500

Scorbot and Motoman Grippers

00-0609-0000	End Effector Attachment for ER4U Gripper	Gripper finger attachment designed to grasp and place round or square objects for loading mills and lathes. For ER4U.	\$125
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Scorbot Accessories

00-1710-0000	Teach Pendant	Teach Pendant for USB Controller and USB-Pro Controller	\$1,680
00-1010-0000	Linear Conveyor (ER4U)	Linear conveyor belt (31.7"l x 4"w x 4"h) (80.5CM x 10Cm x 10CM) for transporting parts to and from Robot work area.	\$2,200
00-1203-0000	Proximity Sensor (ER4U) w/power supply	Proximity Sensor (ER4U). Includes power supply.	\$295
00-1009-0000	Rotary Table w/ sensor (ER4U)	Rotary index table with pegboard design, includes photoelectric sensor. 24V for the Scorbot ER 4u	\$1,800
00-1020-0000	Linear Slide base (ER4U)	1M (3.28') linear slide base for the Scorbot ER 4u	\$5,067
00-1021-0000	Linear Slide base (ER4U)	1.8 M (5.9') linear slide base for the Scorbot ER 4u	\$7,467
00-1013-0000	Linear Positioning Table 300mm (ER4U)	Linear Positioning Table 300mm for the Scorbot ER 4u	\$2,600
00-1014-0000	XY PositioningTable24V	XY Positioning Table (24V) for the Scorbot ER 4u	\$4,934
00-1293-0000	Mobile Workbench 1500x1140mm (incl. Wheels)	Linear Slide Base Workbench 1500x1500X1140MM Including wheels.	\$2,400

MotoMan Robotics			
ROB-MHJF-BAS	Motoman MHJF Basic Package With Gripper	Basic robotics hardware package for the MotoMan MHJF. Includes: MotoMan MHJF Robotic Arm, FSU-100 Controller, Programming Pendant, and Pneumatic Gripper with I/O box.	\$29,200
ROB-MHJF--STND	Motoman MHJF Fundamentals H/W Package	Standard robotics hardware package for the MotoMan MHJF Fundamentals Training Includes: MotoMan MHJF Robotic Arm, FSU-100 Controller, Programming Pendant, Pneumatic Gripper with I/O box, Palletizing Rack, I/O Experiment Table, Gravity Parts Feeder with MicroSwitch Sensor, Workbench with slotted aluminum Tabletop (1800mm L x 800mm W), Adapter plate.	\$34,039
00-0440-0000	MotoMan GP8	GP8 compact high-speed 6-axis Robot. Robot Controller (YRC-1000micro) and Programming Pendant. DOES NOT INCLUDE GRIPPER.	\$28,600
00-0649-0000	Pneumatic Gripper with I/O Box for MotoMan GP8	Pneumatic Gripper for GP8 Robot	Call for Pricing
Curriculum for MotoMan			
77-5001-0000	Fundamentals of Robotics	15 hours of virtual/lab instruction in the Fundamentals of Robotics for the MotoMan MHJF. Requires LearnMate® Learning Management System. Includes RoboCell Simulation launched from LearnMate for MHJF.	\$2,995
77-5002-0000	Advanced Robotics	15 hours of virtual/lab instruction in Advanced Robotics for the MotoMan MHJF. Requires LearnMate® Learning Management System. Prerequisite: Fundamentals of Robotics	\$2,495
77-5003-0000	Robotics & Materials Handling I	Availability: Q3 15 hours of virtual/lab instruction in Robotics Material Handling for the MotoMan MHJF. Requires LearnMate® Learning Management System.	\$2,495
77-5004-0000	Robotics & Materials Handling II	Availability: Q3 15 hours of virtual/lab - Part 2 of Instruction in Robotics Material Handling for the MotoMan MHJF. Requires LearnMate®	\$2,495
63-9254-0000	Robocell For MHJF (Single Seat License Key)	Single Seat License RoboCell virtual simulation control for the MotoMan MHJF robot	\$500
77-5010-0010	Yaskawa Certification – Certified Yaskawa Equipment Operator Test	Availability: Yaskawa Operator Certification Test - Registration fee per student . Prerequisite: Students must complete Fundamentals of Robotics and submit teacher verification of completion. Test is taken online.	\$50
77-5010-0020	Yaskawa Certification – Certified Yaskawa Equipment Programmer Test	Availability: Yaskawa Programmer Certification Test - Registration fee per student . Prerequisite: Students must complete Fundamentals of Robotics and submit teacher verification of completion. Test is taken online.	\$50
Accessories for Motoman			
00-1026-0000	LSB, 1m, Belt, Floor Mounted,7 Axis driver, MHJF/GP8	Availability Q2/2018 1.0m Linear Slide Base on stand (floor mounted support) for MHJF with FS-100 controller and GP8	\$13,500
00-1027-0000	LSB, 1.8m, Belt, Floor Mounted,7 Axis driver, MHJF/GP8	Availability Q2/2018 1.8m Linear Slide Base on stand (floor mounted support) for MHJF with FS-100 controller and GP8	\$15,300
00-1023-0000	LSB, 2.5m, Belt, Floor Mounted,7 Axis driver, MHJF/GP8	Availability Q2/2018 2.5m Linear Slide Base on stand (floor mounted support) for MHJF with FS-100 controller and GP8	\$16,250
00-1024-0000	LSB, 3.0m, Belt, Floor Mounted,7 Axis driver, MHJF/GP8	Availability Q2/2018 2.5m Linear Slide Base on stand (floor mounted support) for MHJF with FS-100 controller and GP8	\$17,350
00-0648-0000	Pneumatic Gripper with I/O Box for Motoman MHJF	Pneumatic Gripper for MHJF, with opening 0" - 2.5" (0 to 6.35mm)	\$2,700
00-1241-0001	Adapter Mounting Plate for MHJF	Adapter plate to mount MHJF to table or slidebase	\$350
00-1280-0000	Stand for MHJF, 850mm	Floor mount pedestal stand (850mm/33.5")	\$760
Other Robotics Accessories			
00-1110-0000	Palletizing Rack	Palletizing Rack w/ pins for creating jigs	\$580
10-1007-4000	Gravity Parts Feeder (with microswitch sensor)	Gravity Parts Feeder with MicroSwitch Sensor	\$494
00-1249-0000	Workbench 59" x 31.5" (1500x800mm) (slotted aluminum top)	Workbench with slotted aluminum top panel for easy mounting of robot and lab components. 59" wide x 31.5" deep	\$2,760
00-1260-0000	PC Extension Shelf 23.5"x31.5" (600x800mm)	PC Extension Shelf 23.5"x31.5" (600x800mm)	\$480
00-1201-0000	I/O Experiment Table	I/O Experiment Table with a lamp, a buzzer and four microswitches, connected to the robot controller. 7.1"x12.6"x3.1" (180 mmx320 mmx80 mm)	\$615

Mfg Foundation Skills

Part Number	Name	Description	2017 MSRP
Requires LMS Add On			
Foundation Skills Bundles - Requires LMS Add On			
JM-FOUN-SKILS-HS	Foundations Skills Virtual Content for High School	180 hours of virtual instruction, covering 12 Foundation Skills course modules. This bundle option contains the same courses as the main bundle (line 6 below), but this option is priced at a discount for high school institutions only.	\$14,994
JM-FOUN-SKILS	Foundations Skills Virtual Content	180 hours of virtual instruction, covering 12 Foundation Skills course modules.	\$19,961
Foundations Skills Curriculum - Requires LMS (add on).			
77-3097-0000	Virtual. Employability	15 hours of virtual instruction. The course delivers 21st Century career skills that ensure success in the workforce. Students develop essential qualities such as a positive attitude, communication skills, leadership skills and work ethics. LM7 content	\$2,495
77-3096-0000	Virtual. Intro to Manufacturing	15 hours of virtual instruction. The course provides students with a comprehensive overview of principles, processes and career choices in manufacturing. LM7 content.	\$2,495
77-3109-0000	Virtual. Intro to Lean Manufacturing	15 hours of virtual instruction. Lean Manufacturing explores the principles and techniques involved in lean manufacturing including minimizing waste in production, improving work flow in industrial processes. LM7 content.	\$2,495
77-LOTO-0000	Virtual. Lock Out Tag Out	15 hours of virtual instruction. Industrial Safety : Lock Out Tag Out delivers critical skills for creating and maintaining a safe work environment. LM7 content.	\$2,495
77-BA01A-0001	Virtual. Math for Technicians I	15 hours of virtual instruction. Mathematics for Technicians I conveys skills- based math curriculum through nine virtual activities. Students gain the fundamental math skills needed for working in a variety of career and industrial environment. LM7 content.	\$2,495
77-BA01B-0001	Virtual. Math For Technicians II	15 hours of virtual content. Mathematics for Technicians 2 applies advanced mathematics concepts to everyday tasks. Through interactive activities students, learn about drive ratios, Ohm's Law mechanical principles, and how these concepts apply in the engineering and industrial environment. LM7 content.	\$2,495
77-BA03-0001	Virtual. Lubrication for Technicians	15 hours of virtual instruction. Lubrication for Technicians conveys skills based curriculum through virtual activities. LM7 content.	\$2,495
77-BA02-0001	Virtual., Blueprint Reading	15 hours of virtual instruction. Through virtual activities, students learn all aspects of reading and interpreting blueprints in industrial environments. LM7 content.	\$2,495
77-BA04-0001	Lab/Virtual, Mechanical Fasteners	15 hours of virtual instruction. May be taught as a virtual course or as a lab course with both virtual and hardware-based activities (Optional accessories for the lab course-Mechanical Fasteners Lab Accessories Set 10-BA04-0000). LM7 content.	\$2,495
77-BA05-0001	Lab/Virtual, Hand Tools	15 hours of Lab and virtual instruction. May be taught as a virtual course or as a lab course with both virtual and hardware-based activities (Optional accessories for the lab course-Hand Tools Lab Accessories Set 10-BA05-0000). LM7 content.	\$2,495
77-BA06-0001	Lab/Virtual, Power Tools	15 hours of lab and virtual instruction. Power Tools delivers twelve skills-based activities, in which students learn all aspects of using power tools, and the role they play in the everyday tasks of skilled professionals. (Optional accessories for the lab course-Power Tools Lab Accessories Set 10-BA06-0000). LM7 content.	\$2,495
77-8014-0001	Lab/Virtual, Mechanical Measurement & Quality Control(I)	Imperial Version. 15 hours of lab and virtual instruction. Mechanical Measurement and Quality Control delivers a solid foundation in precision measuring principles and statistical analysis. (Optional accessories for the lab course-Mechanical Measurement & Quality Control Lab Accessories Set 10-9410-0000). LM7 content.	\$2,495
77-8014-0002	Lab/Virtual, Mechanical Measurement & Quality Control (M)	Metric Version. 15 hours of lab and virtual instruction. Mechanical Measurement and Quality Control delivers a solid foundation in precision measuring principles and statistical analysis. (Optional accessories for the lab course-Mechanical Measurement & Quality Control Lab Accessories Set 00-3043-0000). LM7 content.	\$2,495

Foundations Skills Lab Materials			
10-BA04-0000	Mechanical Fasteners Lab Accessories	Fasteners Labs Accessories Set includes: Fastener Assortment; Screw Pitch Gage, 4-56, 0.5-6; Thread Gage; Nut and Bolt Gage (Inch-Metric); Tap and Drill Bit Set; Tapping Fluid, 4oz; Torque Wrench, 3/8 Drive; Socket Set - English; Bolt Extractor Set; Rivet Tool Kit w/Rivet; Thread Locker Stick (Blue); Hook and Loop Strap, 12", (Pack of 10); 8" Reusable cable tie, Black (Pack of 100); 11" cable tie, Black (Pack of 100)	\$995
10-BA05-0000	Hand Tools Lab Accessories	Hand Tools Including: Allen Wrench Set, 11pcs; Feeler Gauge Set; 25ft Tape Measure in/metric; 12" Steel Rule, in/m; 6" Dial Caliper (150 mm) in/m; Combo Square w/Right, Center & Angle Heads; Utility Knife, Retractable; Scribe; Bench Vise, 6in; Hammer, 16 oz.; Cold Chisel, 3/8"; Hacksaw, 12" Frame & Hacksaw Blade; Bull Nosed Pliers; Straight Tin Snips; Flat File; Screwdriver, Ratcheting w/bits; Combination wrench set; Socket Set w/ 3/8" driver.	\$1,797
10-BA06-0000	Power Tools Lab Accessories	Power Tools Including: Power Drill, 1/2", Corded; Drill Press, (Floor Standing) with Vise and 29 piece Drill Bit Set; Rotary Tool, Variable Speed w/Accessories; Jig Saw, Orbital & Blade Assortment; Reciprocating Saw, Corded & Saw Blades; Circular Saw, 7-1/4", 5/8" Arbor; Table Saw w/Fence, Miter, Stand & Blades & Push Stick; Band Saw w/ Fence and Miter & Saw Blade; Belt/Disc Sander w/Belt; Benchtop Grinder, 6" & (2) grinding wheels; Angle Grinder, 4-1/2", 5/8"-11 Mount & Grinding Wheel	\$8,853
10-9410-0000	Mechanical Measurement & Quality Control Lab Accessories	16' Tape measure (metric/English, s9 scale) ; 6"/150 mm Steel Rule (16r, 4 scales); 300mm #34 Metric/inch Rule; Caliper, Dial, 6 inch; Caliper, Digital, Electronic 6 Inch, 1" Micrometer; Feeler Gage Set (9 leaves); 4" Inside Caliper; 4" Outside Caliper; Dial Indicator; .06 gauge Indicator Clamp; Height Gage Attachment; 6" Digital Height Gage; Steel Protractor; 9 Piece Gage Block Set; Book - "Tools & Rules for Precision Measuring"; Educational charts, set of 16, 3 ring size; Wall chart, Inch/metric Tap Drill Sizes; Card, Inch/metric Tap Drill Sizes; Card, Millimeter/inch Equivalents; Granite Surface Plate with Foam Case (Crystal Pink, 12"x8"x 2"); SPC Interface Cable; 6" Vernier Caliper; Ground Slotted Angle Plate 3.5" x 3" x 2.5"; 12" Rulers; Tool Case; Plug gauges: 0.2450, 0.2460, 0.2470, 0.2480, 0.2490, 0.2500", 0.2510", 0.2520", 0.2530", 0.2540", 0.2550"; Cable Tie, 11", nylon, black	\$7,467
Additional Foundation Topics - Requires LMS (add on)			
77-3019-0000	Fundamentals of Electronics - E-learning content only	LM7 Content, Virtual, Fund of Electronics	\$2,495
77-3020-0000	Advanced Electronics - E-learning content only	LM7 Content, Virtual, Advanced Electronics	\$2,495
77-3021-0000	Fiber Optics - E-learning content only	LM7 Content, Virtual, Fiber Optics	\$2,495
77-3027-0000	Machine Vision and Image Processing - E-learning content only	LM7 Content, Virtual, Vision & Image Process.	\$2,495
77-3028-0000	Exploring Machine Vision and Quality Control - E-learning content only	LM7 Content, Virtual, Exploring Vision & QC	\$2,495
77-3029-0000	Materials Testing - E-learning content only	LM7 Content, Virtual, Materials Testing	\$2,495
77-8046-0000	Electrical Systems - content only	LM7 Content, Lab/Virtual, Electrical Systems	\$2,495
77-8047-0000	Mechanism Technology - E-learning content only	LM7 Content, Lab/Virtual, Mechanisms	\$2,495
Advanced Manufacturing Topics - Requires LearnMate (add on). *See LearnMate tab.			
77-3022-0000	FMS Curriculum	15 hours of virtual instruction in Flexible Manufacturing Systems including virtual experience with Educational Robot and CNC.	\$2,995
77-3015-0000	CIM I Curriculum	15 hours of virtual instruction in Computer Integrated Manufacturing. Includes OpenCIM virtual software and CIM Cell set up when launched	\$2,995
77-3016-0000	CIM II Curriculum	15 hours of virtual instruction in Computer Integrated Manufacturing. Includes OpenCIM virtual software and CIM Cell set up when launched	\$2,495

MSSC - Certified Production Technician Prep Training

Part Number	Name	Description	2017 MSRP
Requires LMS Add On			
MSSC CPT Prep Training Subscription Bundle			
1Y-MSSC-CPT	MSSC CPT Prep Training Bundle 1 yr license	Bundle of 16 courses and Practice test - One year site license for up to 100 students. Virtual access to all courses on LearnMate 7. Bundle includes all courses listed below, in addition to an extra 17th course which is a full Test Prep for the MSSC CPT exam. Pricing option includes LM7 shared hosting option only at no extra charge (but comes with limited functionality). For full LMS functionality, will require LM7 add on for Dedicated Hosting Option. See LearnMate7 tab for more information on the two options.	\$10,000
4Y-MSSC-CPT	MSSC CPT Prep Training Bundle 4 yr license	Bundle of 16 courses and Practice test - Four year site license for up to 100 students. Virtual access to all courses on LearnMate 7. Bundle includes all courses listed below, in addition to an extra 17th course which is a full Test Prep for the MSSC CPT exam. This 4 year license option INCLUDES LearnMate 7 Dedicated hosting option in the price, no additional add-on costs required.	\$27,000
PP-MSSC-CPT-HS	MSSC CPT Prep Training Bundle Perpetual License for High School	Bundle of 16 courses and Practice test - Perpetual license for up to 100 students. Virtual access to all courses on LearnMate 7. Bundle includes all courses listed below, in addition to an extra 17th course which is a full Test Prep for the MSSC CPT exam. LM7 content require LMS add-on. Discount Price for High Schools only	\$19,994
UPGR-FSCPT-PP-HS	Foundation Skills to MSSC upgrade	Upgrade Bundle for JM Foundations Skills to upgrade to MSSC CPT Prep Training. Includes: MSSC Intro, 4 curriculum (Safety Fundamentals, Fundamentals of Pneumatics, Flexible Manufacturing Systems and Computer Integrated Manufacturing), MSSC Practice Test - Perpetual license for up to 100 students. Virtual access to all courses on LearnMate 7. LM7 content require LMS add-on. Discount Price for High Schools only	\$6,000
MSSC CPT Prep Training Curriculum - Virtual (requires LMS add on)			
77-BA01A-0001	Math for Technicians I	15 hours of virtual instruction. Mathematics for Technicians I conveys skills- based math curriculum through nine virtual activities. Students gain the fundamental math skills needed for working in a variety of career and industrial environment.	\$2,495
77-BA04-0001	Mechanical Fasteners	15 hours of virtual instruction. Fasteners play a key role in countless industries. Through virtual and hands-on activities, students identify and work with the many types of fasteners used in industrial environments. Mechanical Fasteners features skills-based curriculum (Optional accessories for the lab course: 10-BA04-0000)	\$2,495
77-BA05-0001	Hand Tools	15 hours of virtual instruction. Students develop the fundamental skills in identification, application and usage of hand tools that Production Technicians use each day. Students will discover in this skill set, that using the proper tool for each application is essential to the quality of any job. (Optional accessories for the lab course: 10-BA05-0000)	\$2,495
77-BA06-0001	Power Tools	15 hours of virtual instruction. Power Tools delivers twelve skills-based activities, in which students learn all aspects of using power tools, and the role they play in the everyday tasks of skilled professionals. (Optional accessories for the lab course: 10-BA06-0000).	\$2,495
77-3202-0000	Safety Fundamentals	15 hours of virtual instruction. Covers one of the most important aspects of an industrial training program. This dedicated safety module explores all aspects of manufacturing and workplace safety with the objective of educating students about safety norms, procedures and laws. Students will have a high level of regard for safety practices after completing this course.	\$2,495
77-LOTO-0000	Lock Out Tag Out	15 hours of virtual instruction. Industrial Safety : Lock Out Tag Out delivers skills-based curriculum meeting OSHA requirements on the critical skills for creating and maintaining a safe work environment. Through virtual and hands-on activities, students learn all aspects of lockout/tagout procedures in industrial environments.	\$2,495
77-3097-0000	Career Skills/Employability	15 hours of virtual instruction. The course delivers 21st Century career skills that ensure success in the workforce. Students develop essential qualities such as a positive attitude, communication skills, leadership skills and work ethics. The Career Skills Education Program is designed to ensure students obtain these essential personal and employability skills.	\$2,495
77-BA01B-0001	Math For Technicians II	15 hours of virtual content. Mathematics for Technicians 2 applies advanced mathematics concepts to everyday tasks. Through interactive activities students learn how these concepts apply in the engineering and industrial environment. Math for Technicians 2 delivers the mathematics and physics skills needed for working with materials, maintaining machinery and creating equipment layouts.	\$2,495
77-BA02-0001	Blueprint Reading	15 hours of virtual instruction. Through virtual activities and a skills-based curriculum, students learn all aspects of reading and interpreting blueprints in industrial environments. Students learn how Production Technicians use blueprints to install, maintain, troubleshoot, and service plant machinery and equipment.	\$2,495
77-8014-0001	Mechanical Measurement & Quality Control (Imperial)	Imperial Version.15 hours of lab and virtual instruction. Mechanical Measurement and Quality Control delivers a solid foundation in precision measuring principles and statistical analysis. Students gain proficiency in reading mechanical drawings, in selecting the proper tools for inspecting parts and in preparing quality control/inspection reports.(Optional accessories for the lab course: 10-9410-0000).	\$2,495
77-8068-0000	Pneumatics Technology 1: Fundamentals of Pneumatics	15 hours of virtual instruction in the Fundamentals of Pneumatics. Pneumatics 1 enables students to design basic pneumatic circuits. Applied science experiments are used to demonstrate the physical principles of fluid power. Includes PneuMotion pneumatic simulation software.	\$2,995
77-BA03-0001	Lubrication for Technicians	15 hours of virtual instruction. Lubrication for Technicians uses skills based curriculum and virtual activities to teach the fundamentals, terminology and materials used for machine lubrication in production environments.	\$2,495
77-3096-0000	Intro to Manufacturing	15 hours of virtual instruction. The course provides students with a comprehensive overview of principles, processes and career choices in manufacturing. Students learn about the structure of a manufacturing company, computer-aided design (CAD), rapid prototyping, and concurrent engineering. Projects include planning a manufacturing company and designing prototypes and products and manufacturing parts.	\$2,495
77-3109-0000	Virtual. Intro to Lean Manufacturing	15 hours of virtual instruction. Lean Manufacturing explores the principles and techniques involved in lean manufacturing including minimizing waste in production and improving work flow in production processes.	\$2,495
77-3022-0000	FMS Curriculum	15 hours of virtual instruction in Flexible Manufacturing Systems including virtual experience with robots and CNC machines. The course exposes students to automation and industrial applications. Students develop and edit programs,record precise robotic positions, accurately mill parts, and synchronize mill and robot operation. Students gain "virtual hands-on" experience in CNC and robot programming, especially in I/O commands.	\$2,995
77-3015-0000	CIM I Curriculum	15 hours of virtual instruction in Computer Integrated Manufacturing introduces the basic concepts and procedures of CIM production as well as	\$2,995
77-3204-0000	MSSC Practice Test	CPT Practice test course in LearnMate for MSSC bundle.	\$2,495

Foundations Skills Lab Materials

10-BA04-0000	Mechanical Fasteners Lab Accessories	Fasteners Labs Accessories Set includes: Fastener Assortment; Screw Pitch Gage, 4-56, 0.5-6; Thread Gage; Nut and Bolt Gage (Inch-Metric); Tap and Drill Bit Set; Tapping Fluid, 4oz; Torque Wrench, 3/8 Drive; Socket Set - English; Bolt Extractor Set; Rivet Tool Kit w/Rivet; Thread Locker Stick (Blue); Hook and Loop Strap, 12", (Pack of 10); 8" Reusable cable tie, Black (Pack of 100); 11" cable tie, Black (Pack of 100)	\$995
10-BA05-0000	Hand Tools Lab Accessories	Hand Tools Including: Allen Wrench Set, 11pcs; Feeler Gauge Set; 25ft Tape Measure in/metric; 12" Steel Rule, in/m; 6" Dial Caliper (150 mm) in/m; Combo Square w/Right, Center & Angle Heads; Utility Knife, Retractable; Scribe; Bench Vise, 6in; Hammer, 16 oz.; Cold Chisel, 3/8"; Hacksaw, 12" Frame & Hacksaw Blade; Bull Nosed Pliers; Straight Tin Snips; Flat File; Screwdriver, Ratcheting w/bits; Combination wrench set; Socket Set w/ 3/8" driver.	\$1,797
10-BA06-0000	Power Tools Lab Accessories	Power Tools Including: Power Drill, 1/2", Corded; Drill Press, (Floor Standing) with Vise and 29 piece Drill Bit Set; Rotary Tool, Variable Speed w/Accessories; Jig Saw, Orbital & Blade Assortment; Reciprocating Saw, Corded & Saw Blades; Circular Saw, 7-1/4", 5/8" Arbor; Table Saw w/Fence, Miter, Stand & Blades & Push Stick; Band Saw w/ Fence and Miter & Saw Blade; Belt/Disc Sander w/Belt; Benchtop Grinder, 6" & (2) grinding wheels; Angle Grinder, 4-1/2", 5/8"-11 Mount & Grinding Wheel	\$8,853
10-9410-0000	Mechanical Measurement & Quality Control Lab Accessories	16' Tape measure (metric/English, s9 scale) ; 6"/150 mm Steel Rule (16r, 4 scales); 300mm #34 Metric/inch Rule; Caliper, Dial, 6 inch; Caliper, Digital, Electronic 6 Inch, 1" Micrometer; Feeler Gage Set (9 leaves); 4" Inside Caliper; 4" Outside Caliper; Dial Indicator; .06 gauge Indicator Clamp; Height Gage Attachment; 6" Digital Height Gage; Steel Protractor; 9 Piece Gage Block Set; Book - "Tools & Rules for Precision Measuring"; Educational charts, set of 16, 3 ring size; Wall chart, Inch/metric Tap Drill Sizes; Card, Inch/metric Tap Drill Sizes; Card, Millimeter/inch Equivalents; Granite Surface Plate with Foam Case (Crystal Pink, 12"x8"x 2"); SPC Interface Cable; 6" Vernier Caliper; Ground Slotted Angle Plate 3.5" x 3" x 2.5"; 12" Rulers; Tool Case; Plug gauges: 0.2450, 0.2460, 0.2470, 0.2480, 0.2490, 0.2500", 0.2510", 0.2520", 0.2530", 0.2540", 0.2550"; Cable Tie, 11", nylon, black	\$7,467

Automation

Part Number	Name	Description	2017 MSRP
Content Requires LMS Add On			
JobMaster Training Station (JMTS) Components			
Bench Components			
00-1300-0003	JMTS - Double Sided Mounting Panel	Double sided T-slot training panel for table mounting (47.3" x 31.5")	\$2,950
00-1300-0004	JMTS - Mobile Bench Base for Panel	Mobile cabinet base for training station (work area used to mount the double sided mounting panel 00-1300-0003)	\$4,950
00-1249-0000	JMTS - Stationary Workbench for Panel	Stationary Workbench with slotted aluminum top panel for easy mounting of double sided mounting panel 00-1300-0003. (59" wide x 31.5" deep)	\$2,760
22-0004-0001	Hydraulic pump, 110V	Assembly, Hydraulic Power pump Unit w/Switch, 110V	\$2,160
00-1300-0007	JMTS - Hydraulic pipes storage bracket	Optional equipment storage bracket for hydraulic pipes - mounts on side of the training station	\$135
00-1300-0006	JMTS - Monitor Mounting Arm	Optional bracket to mount monitor or all-in-one computer in the edge of the double sided mounting panels - up to 2 units can be installed	\$215
00-1300-0005	JMTS - Extension Table	Optional extension table mounts on the side of the Mobile Bench Base to extend work area	\$531
00-1300-0002	JMTS - Storage Unit	Mobile cabinet for storage - includes T-slot area for component storage and shelves	\$3,850
Electrical Modules			
10-2550-1000	JMTS - Power Supply Module	Modular Electronics Add-on for JMTS with Power Supply for training bench components	\$493
10-2550-2000	JMTS - Relay Module	Modular Electronics Add-on for JMTS with three (3) electrical relays for training and project use	\$596
10-2550-3000	JMTS - Operational Module	Modular Electronics Add-on for JMTS with switches, indicators, buzzer and push buttons for training and project use	\$586
10-2550-4000	JMTS - PLC Module (Siemens S7-1200)	Modular Electronics Add-on for JMTS with a Siemens S7-1200 PLC unit for training and project use	\$1,884
10-2550-6000	JMTS - PLC Module (Micrologix 1100)	Modular Electronics Add-on for JMTS with an Allen Bradley Micrologix 1100 PLC unit for training and project use	\$1,884
10-2550-5000	JMTS - HMI Module	Modular Electronics Add-on for JMTS with a Siemens Simatic 7" touchscreen HMI module for training and project use	\$1,326
Training Hardware Kits			
00-1904-1000	JMTS - P1 Kit	Pneumatic training kit for Pneumatics 1: conditioning unit, 5/2 double air pilot valve, 3/2 mushroom push button valve, 3/2 Lever valve and all components as listed in the catalog. Prerequisite: JMTS station	\$2,224
00-1905-1000	JMTS - P2 Kit	Pneumatic training kit for Pneumatics 2: Double acting cylinder, 5/2 double air pilot valve, (2) Single air pilot valves, 3/2 double roller lever valve, pneumatic time delay device, manifold. Prerequisite: JMTS station and P1 kit	\$1,570
00-1906-1000	JMTS - P3 Kit	Pneumatic training kit for Pneumatics 3: 5/2 double solenoid valve, (2) inductive proximity sensor, magnetic sensors (pair), (14) banana plug cables. . Prerequisite: JMTS station, P1 kit and P2 kit	\$1,610
00-2105-1000	JMTS - H1 Kit	Hydraulics training kit for Hydraulics 1: Double-acting cylinder 1-1/8", 1 4/3 selector valve (closed center), Two-way control valve, (2) one-way control valves, Pressure relief valve, flow meter, (2) pressure gauges, (2) T-connectors, (10) Hydraulic hoses, Hex wrench, funnel. Prerequisite: JMTS station HYDRAULIC PUMP NOT INCLUDED, if customer is not supplying please add 22-0004-0001 to the quotation.	\$3,342
00-2106-1000	JMTS - H2 Kit	Hydraulics training kit for Hydraulics 2: Double-acting cylinder (diameter 3/4"), 4/3 selector valve (open center), Pressure reducing valve, (2) Manifold, coiled hoses, temperature gauge, (2) 80cm hoses. Prerequisite: JMTS station and H1 kit	\$2,394
00-2107-1000	JMTS - H3 Kit	Hydraulics training kit for Hydraulics 3: 4/3 double solenoid valve, 2/2 solenoid valve, (3) magnetic sensors, (14) Banana plug cables (24" and 48"), electric distributor. Prerequisite: JMTS station, H1 kit and H2 kit	\$1,336
00-3075-1000	JMTS - PLC1 Kit	PLC Hardware Kit for PLC Technology 1: Includes 4VDC Servo Motor, Optical encoder unit, Lead screw, Inductive proximity sensor, and banana plug cables. Prerequisite: JMTS Station	\$2,500

JMTS Curriculum			
77-8070-0010	Pneumatics 1 JMTS LM7	15 hours of lab & virtual instruction in the Fundamentals of Pneumatics-LearnMate® Content . Includes PneuMotion pneumatic simulation	\$2,995
77-8070-0020	Pneumatics 2 JMTS LM7	15 hours of lab & virtual instruction in Advanced Pneumatics - LearnMate® Content . Prerequisite - Pneumatics Technology 1: Works	\$2,495
77-8070-0030	Pneumatics 3 JMTS LM7	15 hours of lab & virtual instruction in Electro-Pneumatics-LearnMate® Content . Prerequisite - Pneumatics Technology 2. Works with Hardware	\$2,495
77-8071-0010	Hydraulics 1 JMTS LM7	15 hours of lab & virtual instruction in the Fundamentals of Hydraulics-LearnMate® Content Includes HydraMotion hydraulics simulation	\$2,995
77-8071-0020	Hydraulics 2 JMTS LM7	15 hours of lab & virtual instruction in Electro-Hydraulics- LearnMate® Content . Prerequisite - Hydraulics Technology 1- Works with Lab	\$2,495
77-8071-0030	Hydraulics 3 JMTS LM7	15 hours of virtual instruction in Advanced Hydraulics - LearnMate® Content Prerequisite - Hydraulics Technology 2 - Works with Lab	\$2,495
77-8210-0010	PLC Tech 1 for Micrologix 1100 JMTS LM7	15 hours of lab & virtual instruction in the Fundamentals of Ladder Logic for Allen Bradley Micrologix 1100. LearnMate® Content. Includes	\$2,995
77-8210-0020	PLC Tech 2 for Micrologix 1100 JMTS LM7	15 hours of lab & virtual instruction in Advanced Ladder Logic for Allen Bradley Micrologix 1100. LearnMate® Content. Prerequisite: PLC	\$2,495
77-8210-0030	PLC Tech 3 for Micrologix 1100 JMTS LM7	15 hours of lab & virtual instruction in PLC Controlled Pneumatic Systems for Allen Bradley Micrologix 1100. LearnMate® Content. Prerequisites:	\$2,495
77-8210-0040	PLC Tech 4 for Micrologix 1100 JMTS LM7	15 hours of lab & virtual instruction in PLC Controlled Hydraulic Systems for Allen Bradley Micrologix 1100. LearnMate® Content. Prerequisite: PLC	\$2,495
77-8210-0050	Siemens PLC Supplement for Micrologix LM7	6 Hours of virtual instruction in PLC programming as supplement to Allen Bradley PLC curriculum for students who wish to learn the use of the Siemens S7-1200. LearnMate® Content. Prerequisite: PLC Technology 1 for Allen Bradley Micrologix 1100. Works with Lab Hardware JMTS	\$2,495
77-8220-0010	PLC Tech 1 for Siemens S7-1200 JMTS LM7	15 hours of lab & virtual instruction in the Fundamentals of Ladder Logic for Siemens S7-1200. LearnMate® Content. Works with Lab Hardware	\$2,495
77-8220-0020	PLC Tech 2 for Siemens S7-1200 JMTS LM7	15 hours of lab & virtual instruction in Advanced Ladder Logic for Siemens S7-1200. LearnMate® Content. Prerequisite: PLC Technology 1 .	\$2,495
77-8220-0030	PLC Tech 3 for Siemens S7-1200 JMTS LM7	15 hours of lab & virtual instruction in PLC Controlled Pneumatic Systems for Siemens S7-1200. LearnMate® Content. Prerequisites: PLC Technology	\$2,495
77-8220-0040	PLC Tech 4 for Siemens S7-1200 JMTS LM7	15 hours of lab & virtual instruction in PLC Controlled Hydraulic Systems for Siemens S7-1200. LearnMate® Content. Prerequisite: PLC Technology	\$2,495
63-9239-0000	PneuMotion Software	PneuMotion virtual pneumatics software; single seat license	\$500
63-9240-0000	Hydra Motion Software	HydraMotion virtual hydraulics software; single seat license	\$500
63-9241-0000	PLCMotion Software	PLCMotion virtual PLC software; single seat license	\$500
Sensor Line			
JM-SNSR-PANEL	Sensor Trainer & Curriculum	SensorLine - Analog and Digital Sensors Aluminum Training Panel. 15 hours of virtual instruction in design and assembly of basic control circuits.	\$6,762
00-3014-0000	SensorLine - Sensor Technology Training Panel	Analog and Digital Sensors Aluminum Training Panel. Dimensions: 23.6" w x 22" H (600mmW x 560mm H). Inductive proximity sensor, contact sensor, magnetic reed sensor, light sensor, pressure sensor, mounting plate, buzzer, (2) lamps, relay unit.	\$4,267
77-8012-0000	Sensor Application Technology - E-learning content only	15 hours of virtual instruction in design and assembly of basic control circuits- LearnMate® Content .	\$2,495

Process Control

Part Number	Name	Description	2017 MSRP
NanoMAX Multivariable Process Control Trainer			
00-0107-0220	NanoMAX Multivariable Process Control Trainer; 220V	JobMaster process control and instrumentation trainer covers level, flow, temperature and pressure processes. Please Allow 20 Weeks for Delivery.	\$67,501
Nano Tabletop Process Control Training Systems			
00-0303-0110	NANO Liquid Level Training System, 110V	Table top format process control training system for Liquid Level process control. Please allow 20 weeks for delivery.	\$16,844
00-0303-0220	NANO Liquid Level Training System, 220V	Table top format process control training system for Liquid Level process control. Please allow 20 weeks for delivery.	\$16,844
00-0310-0110	NANO Liquid Flow Training System; 110V	Table top format process control training system for Liquid Flow process control. Please allow 20 weeks for delivery.	\$16,844
00-0310-0220	NANO Liquid Flow Training System; 220V	Table top format process control training system for Liquid Flow process control. Please allow 20 weeks for delivery.	\$16,844
00-0304-0110	NANO Air Pressure Training System; 110V	Table top format process control training system for Air Pressure process control. Please allow 20 weeks for delivery.	\$16,844
00-0304-0220	NANO Air Pressure Training System; 220V	Table top format process control training system for Air Pressure process control. Please allow 20 weeks for delivery.	\$16,844
00-0309-0110	NANO Air Temperature Training System; 110V	Table top format process control training system for Air Temperature process control. Please allow 20 weeks for delivery.	\$16,844
00-0309-0220	NANO Air Temperature Training System; 220V	Table top format process control training system for Air Temperature process control. Please allow 20 weeks for delivery.	\$16,844
Process Control Curriculum for Nano Trainers (Content Requires LMS Add On)			
77-8073-0001	LM7 Content, Liquid Level for Nano System	Instruction module for Process Control - Level	\$1,200
77-8073-0002	LM7 Content, Liquid Flow for Nano System	Instruction module for Process Control - Flow	\$1,200
77-8073-0003	LM7 Content, Air Pressure for Nano System	Instruction module for Process Control - Pressure	\$1,200
77-8073-0004	LM7 Content, Air Temperature for Nano System	Instruction module for Process Control - Temperature	\$1,200
77-8073-0005	LM7 Content, MultiVariable for NanoMax System	Instruction module for Process Control including Level, Flow, Pressure and Temperature	\$2,495
Process Control (NanoMax) Installation			
50-0095-0000	Training and Installation - onsite (does not include Travel and Expenses) (1 Day)	Daily rate for Intelitek on-site installation and training on equipment	\$1,650

Refrigeration and Air Conditioning

Part Number	Name	Description	2018 MSRP
Refrigeration and Air Conditioning Trainers			
00-5901-0001	Refrigeration and Air Conditioning Base Unit	The Base unit includes manifold, vacuum pump, digital hanging weight, leak detector, S-COOL software, and wrench. The base unit is required for both the Refrigeration and Air Conditioning plug-in panels. Requirements: R-134A refrigerant gas. Please Allow 12 Weeks for Delivery.	\$11,641
00-5901-0002	Advanced Refrigeration Panel	The Advanced Refrigeration Panel easily connects to the Base Unit and is used to teach the fundamental principles of cooling and refrigeration. REQUIRES Refrigeration and Air Conditioning Base Unit (00-5901-0001). Please Allow 12 Weeks for Delivery.	\$6,065
00-5901-0003	Advanced Air Conditioning Panel	The Advanced Air Conditioning Panel easily connects to the Base Unit and teaches the fundamental principles of air conditioning. REQUIRES Refrigeration and Air Conditioning Base Unit (00-5901-0001). Please Allow 12 Weeks for Delivery.	\$6,065
Optional Accessories for Refrigeration Trainer			
00-5901-0004	Piping Kit for Refrigeration System	The Piping Kit includes soft copper and hard drawn 1/4" tubing, plastic tubing, pipe cutter, bending tool, copper valves, flaring tool, and instruction manual with activities.	\$1,526
Refrigeration and Air Conditioning Curriculum (Content Requires LMS Add On)			
77-8301-0001	LM7 Content, Basic and Advanced Refrigeration	Instruction module for Basic and Advanced Refrigeration (REQUIRES LMS ADD-ON)	\$1,200
77-8301-0002	LM7 Content, Basic and Advanced Air Conditioning	Instruction module for Basic and Advanced Air Conditioning (REQUIRES LMS ADD-ON)	\$1,200

JobMaster™ Electrical & Mechanical Bench

Part Number	Name	Description	2017 MSRP
Content Requires LMS Add On			
JobMaster Bundles - Requires LMS Add ON			
JM-BASE-ELEC	Basic Electrical Two-Sided Bench 110V	Mobile training bench with single phase (120V) power of each side can accommodates 4 students at once. LearnMate Content and all panels for: - Electrical Circuits - Resistors and Conductors - LCR Circuits - Motors & Generators	\$26,663
JM-BASE-ELEC-2	Basic Electrical Two-Sided Bench 220V	Mobile training bench with single phase power of each side can accommodates 4 students at once. LearnMate Content and all panels for: - Electrical Circuits - Resistors and Conductors - LCR Circuits - Motors & Generators - Includes step-down transformer package for 220V (10-PC09-0000) required for international applications.	\$30,997
JM-CTRL-SYSM	Electrical Control Systems Two Sided Bench 110V	Mobile training bench with two (2) single phase power controls and two (2) three phase power controls, accommodates 4 students at once. LearnMate Content and all panels for: - Electric Circuit Protection, Transformers, Electric Motors, Electromagnetic Motor Starters, Relays & Timers - Pilot Devices - Solid State Starters - Variable Frequency Drives (VFDs) - DC Motor Control Also includes a storage rack for placement of panels not currently in use.	\$82,786
JM-CTRL-SYSM-2	Electrical Control Systems Two Sided Bench 220V	Mobile training bench with two (2) single phase power controls and two (2) three phase power controls, accommodates 4 students at once. LearnMate Content and all panels for: - Electric Circuit Protection, Transformers, Electric Motors, Electromagnetic Motor Starters, Relays & Timers - Pilot Devices - Solid State Starters - Variable Frequency Drives (VFDs) - DC Motor Control Also includes a storage rack for placement of panels not currently in use. - Includes step-down transformer package for 220V (10-PC09-0000) required for international applications.	\$87,120
JM-POWR-ELEC	Industrial Power Electronics Two Sided Bench 110V	Mobile training bench with 120V power one side and 220V power one side and accommodates 4 students at once. LearnMate Content and all panels for Industrial Power Electronics: - Oscilloscope - Digital Multimeter - Hand Held Digital Oscilloscope - DC Power Supplies - Single-Phase & 3 Phase Power Supplies - Thyristor Electric Motors - Electronic Timers - Stepper Motor Drives - Servo Motor Drives Also includes a storage rack for placement of panels not currently in use.	\$57,266
JM-POWR-ELEC-2	Industrial Power Electronics Two Sided Bench 220V	Mobile training bench with single Phase power one side and three Phase power one side and accommodates 4 students at once. LearnMate Content and all panels for Industrial Power Electronics: - Oscilloscope - Digital Multimeter - Hand Held Digital Oscilloscope - DC Power Supplies - Single-Phase & 3 Phase Power Supplies - Thyristor Electric Motors - Electronic Timers - Stepper Motor Drives - Servo Motor Drives Also includes a storage rack for placement of panels not currently in use. - Includes step-down transformer package for 220V (10-PC09-0000) required for international applications.	\$61,600
JM-CMPL-ELEC	Complete Industrial Electronics Program 110V	Mobile training bench with two (2) single phase power controls and two (2) three phase power controls, accommodates 4 students at once. LearnMate Content and all panels for: - Basic Electric, - Electrical Control Systems - Industrial Power Electronics Also includes two (2) storage rack for placement of panels not currently in use. This bundle includes all 3 bundles in one package	\$147,806
JM-CMPL-ELEC-2	Complete Industrial Electronics Program 220V	Mobile training bench with two (2) single phase power controls and two (2) three phase power controls, accommodates 4 students at once. LearnMate Content and all panels for: - Basic Electric, - Electrical Control Systems - Industrial Power Electronics Also includes two (2) storage rack for placement of panels not currently in use. This bundle includes all 3 bundles in one package - Includes step-down transformer package for 220V (10-PC09-0000) required for international applications.	\$150,873

JobMaster Electrical Series Panels - Requires LMS (add on)		*requires Mobile Training Bench	
Basic Power Electricity			
JM-BASE-EA01A	Electrical Circuits	Electrical Circuits teaches 14 skills in 21 hours of LearnMate® lab instruction, includes 5 Flexponent Panels: Switch, Lamp & Buzzer (E040);	\$4,092
		Additional EA01A Panels	\$3,392
JM-BASE-EA01B	Resistors & Conductors	Resistors and Conductors teaches 9 skills in 15 hours of LearnMate® lab instruction, includes (1) Flexponent Panel: - Resistance (E042).	\$1,700
		Prerequisite Electrical Circuits (EA01A)	
		Additional set E042 Panels.	\$1,000
JM-BASE-EA01C	LCR Circuits	LCR Circuits teaches 14 skills in 21 hours of LearnMate® lab instruction, includes (5) Flexponent Panel: Magnetism (E029); Capacitance (E043); Inductance (E044); Motor/Generator (E057); Relay/Contactor (E150); Prerequisite Resistors & Conductors (EA01B).	\$3,992
		Additional EA01C Panels.	\$3,292
JM-BASE-EA01D	Motors & Generators	Motors & Generators teaches 8 skills in 15 hours of LearnMate® lab instruction. Prerequisite LCR Circuits (EA01C)	\$1,295
Electrical Control Systems			
JM-CTRL-EA02	Electric Circuit Protection & Monitoring	Electric Circuit Protection & Monitoring teaches 10 skills in 15 hours of LearnMate® lab instruction, includes (2) Flexponent Panel: Manual Starter (E022);	\$3,134
		Additional EA02 Panels.	\$2,434
JM-CTRL-EA03	Three-Phase Transformers	Three-Phase Transformers teaches 8 skills in 15 hours of LearnMate® lab instruction, includes (1) Flexponent Panel: Three-Phase Transformer (E003)	\$1,600
		Additional EA03 Panels.	\$900
JM-CTRL-EA04	Electric Motors	Electric Motors teaches 14 skills in 21 hours of LearnMate® lab instruction, includes (10) Flexponent Panels: SCR Speed Controller (E007); Transformer (E012); Shaded-Pole Motor (E027); Lamps & Switches (E154); Dissectible Motor (E156); Three-phase motor (E010); Capacitor-Start Motor (E019); DC Motor (E034); Split-Phase Motor (E065); Adjustable Motor Load (E066).	\$10,133
		Additional EA04 Panels.	\$9,433
JM-CTRL-EA07	Electromagnetic Motor Starters	Electromagnetic Motor Starters teaches 8 skills in 15 hours of LearnMate® lab instruction, includes (9) Flexponent Panels: Start-Stop Control (E002); Single Magnetic Starter (E004); Start-Reverse-Stop Switch (E005); Reversing Magnetic Starter (E006); Three-Phase Motor (E010); Transformer (E012); Analog Relay (E016); Lamps& Switches (E154); HOA Switch (E155).	\$5,971
		Additional EA07 panels	\$5,271
JM-CTRL-EA08	Timers & Time - Delay Relays	Timers & Time - Delay Relays teaches 8 skills in 15 hours of LearnMate® lab instruction, includes (2) Flexponent Panels: Digital Relay (E017); Electric Timer (E041).	\$2,367
		Prerequisite Electromagnetic Motor Starters (EA07)	
		Additional EA08 Panels	\$1,667
JM-CTRL-EA09	Pilot Devices	Pilot Devices teaches 10 skills in 15 hours of LearnMate® lab instruction, includes (4) Flexponent Panel: Limit Switch (E011); Liquid Level & Pressure Switch (E018); Proximity & Photoelectric Switch (E126); AC/DC Circuit (E153).	\$4,669
		Prerequisite Electromagnetic Motor Starters (EA07) and Electric Motors (EA04)	
		Additional EA09 Panels	\$3,969
JM-CTRL-EA11	Solid-State Reduced Voltage Starter	Solid-State Reduced Voltage Starter teaches 5 skills in 15 hours of LearnMate® lab instruction, includes (1) Flexponent Panel: Solid State Starter (E024).	\$2,500
		Prerequisite Electromagnetic Motor Starters. (EA07)	
		Additional EA11 Panels.	\$1,800
JM-CTRL-EA12	Variable Frequency Drives	Variable Frequency Drives teaches 6 skills in 15 hours of LearnMate® lab instruction, includes (1) Flexponent Panel: Variable Frequency Drive (E067).	\$2,384
		Prerequisite Electric Motors (EA04)	
		Additional EA12 Panels	\$1,684
JM-CTRL-EA16	DC Motor Control	DC Motor Control teaches 8 skills in 15 hours of LearnMate® lab instruction, includes (7) Flexponent Panels: SCR Speed Control (E007); Digital Relay (E017); F-O-R Switch and Potentiometer (E025); DC Motor (E034); PWM Motor Control (E038); Inertial Load (E048); Regenerative Four Quadrant DC Drive (E071).	\$6,818
		Prerequisite Electromagnetic Motor Starters (EA07) & Electric Motors (EA04)	
		Additional EA16 Panels	\$6,118

Industrial Power Electronics			
JM-POWR-EB01A	Oscilloscope	Oscilloscope teaches 8 skills in 15 hours of LearnMate® lab instruction, includes Oscilloscope and (2) Flexponent Panels: Adjustable Power Supply (E087); AC/DC Circuit (E153).	\$3,514
		Additional EB01A Panels	\$2,814
JM-POWR-EB01B	Digital Multimeter	Digital Multimeter teaches 17 skills in 26 hours of LearnMate® lab instruction, includes Digital Multimeter and (2) Flexponent Panels: Resistors (E052); Filters/Capacitors (E055). Prerequisite Oscilloscope (EB01A)	\$2,392
		Additional EB01B Panels	\$1,692
JM-POWR-EB01C	Hand Held Digital Oscilloscope	Hand Held Digital Oscilloscope teaches 8 skills in 15 hours of LearnMate® lab instruction, includes Hand-held Digital Oscilloscope and (2) Flexponent Panels: Adjustable Power Supply (E087) and AC/DC Circuit (E153). Prerequisite Digital Multimeter (EB01B)	\$3,514
		Additional EB01C Panels	\$2,814
JM-POWR-EB02A	DC Power Supplies	DC Power Supplies teaches 11 skills in 17 hours of LearnMate® lab instruction, includes (3) Flexponent Panels: Single-Phase Bridge Rectifier (E039); Low-voltage Transformer (E061); Diode Rectifiers (E062). Prerequisite Hand Held Digital Oscilloscope (EB01C)	\$2,330
		Additional EB02A Panels	\$1,630
JM-POWR-EB02B	Single Phase & Three Phase Power Supplies	Single Phase & Three Phase Power Supplies teaches 13 skills in 20 hours of LearnMate® lab instruction, includes (3) Flexponent Panels: Zener Diode (E049); Regulated Power Supply (E050); Three-Phase Bridge Rectifier (E053). Prerequisite DC Power Supplies (EB02A)	\$2,166
		Additional EB02B Panels	\$1,466
JM-POWR-EB03	Thyristor Electric Motor Drives	Thyristor Electric Motor Drives teaches 15 skills in 23 hours of LearnMate® lab instruction, includes (8) Flexponent Panels: DC Motor (E034); SCR (E081); Full-wave SCR Drive (E082); TRIAC (E083); DIAC Adjustable Resistors (E084); TRIAC with Schmidt Trigger (E085); Pulse Width Modulation (PWM) Motor Driver (E088); Universal AC/DC Motor and PMDC Motor. Prerequisite Single Phase & Three Phase Power Supplies (EB02B)	\$6,083
		Additional EB03 Panels	\$5,383
JM-POWR-EB04	Electronic Timers & Triggers	Electronic Timers & Triggers teaches 7 skills in 15 hours of LearnMate® lab instruction, includes (1) Flexponent Panel: Timers & Triggers (E089). Prerequisite Thyristor Electric Motor Drives (EB03)	\$1,700
		Additional EB04 Panels	\$1,000
JM-POWR-EB05	Stepper Motors & Drivers	Stepper Motors & Drivers teaches 7 skills in 15 hours of LearnMate® lab instruction, includes (1) Flexponent Panel: Stepper Motor and Drive (E090). Prerequisite Electronic Timers & Triggers (EB04)	\$2,300
		Additional EB05 Panels	\$1,600
JM-POWR-EB06	Servo Motor Drives	Servo Motor Drives teaches 7 skills in 15 hours of LearnMate® lab instruction, includes (1) Flexponent Panel: Servo Motor and Drive (E091). Prerequisite Stepper Motors and Drivers (EB05)	\$1,467
		Additional EB06 Panels	\$767
JobMaster Bench Hardware			
10-LS00-0200	Mobile Learning Station	Two sided/Four student Mobile learning station. Bench height: 34" (86.4cm). Vertical rack 42" (107cm).	\$5,500
10-PC04-0000	Power Supply	Single phase power control panel 120V. A single phase 120V power supply is required for all the electrical series.	\$1,200
10-PC06-0000	Power Supply	Three-phase power control panel 240V. A 3-phase 240V power supply is required for the following modules: All of Electrical Control Systems (EA02; EA03; EA04; EA07; EA09; EA11; EA12 except EA16), and EB02B from Industrial Power Electronics	\$1,267
10-PC09-0000	JM, PC09, Inter. Transformer Pack, LS200 Bench	Step Down Transformer Pack for 220V power conversion of the JobMaster Electrical Series	\$4,334
10-PPSU-0001	Panel Storage Rack	Portable Panel Storage rack; holds up to 50 single JM Panels	\$2,200

JobMaster Mechanical Series - Requires LMS (add on)

JM-MBLM-0000	Complete Mechanical System Two-Sided Bench: 110V/220V	Mechanical Training Bench, Bearing Service Cart, Laser Alignment and Vibration Analysis, Accommodates 4 Students at a time. LM7 Content - over 135 hours of lab Instruction.	\$77,200
JM-MBLM-00X2	Mechanical Bench Double-sided; 110V/220V	Mechanical Training Bench (48"x60"x29"), double sided (accommodates 4 students at once) 110V or 220V, Imperial Hardware. Includes 10 curriculum modules Basic Machines, Machine Statistics & Dynamics, Machine Shafts & Keys, Bearings, Belt Drives, Chain Drives, Machine Shaft Coupling, Gear Drives, Machine Speed Reducers and Electric Brakes	\$45,000
JM-MBLM-ME10	Mechanical Bench Single-sided; 110V/220V	Mechanical Training Bench (48"x60"x29"), single sided (accommodates 2 students at once) 110V or 220V, Imperial Hardware. Includes 10 curriculum modules Basic Machines, Machine Statistics & Dynamics, Machine Shafts & Keys, Bearings, Belt Drives, Chain Drives, Machine Shaft Coupling, Gear Drives, Machine Speed Reducers and Electric Brakes	\$27,000
00-ME10-1000	Mechanical Bench Single-sided; 110V/220V	Mechanical Training Bench (48"x60"x29"), single sided (accommodates 2 students at once) 110V or 220V, Imperial Hardware.	\$22,000
JM-MBLM-ME11	Laser Alignment Add-on	Optional add on to Mechanical Bench; Laser Alignment package provides laser alignment tools for both shaft and belt alignment. 15 Hours of LearnMate Curriculum. Requires Mechanical Bench.	\$12,700
JM-MBLM-ME12	Vibration Analysis Add-on	Optional add on to Mechanical Bench; Vibration Analysis package provides digital analyzer and other components so students learn to measure motor vibration and identify sources. 15 Hours of LearnMate Curriculum. Requires Mechanical Bench.	\$6,450
JM-MBLM-ME13	Bearing Service; 110V / 220V	Mobile training station for installing, removing and servicing plain and roller bearings. 110V 36"x28.5"x48". 15 Hours of LearnMate Curriculum.	\$7,450

ELECTROMECHANICAL MAINTENANCE CELL - Requires LMS (add on)

JM-EMMC-1600	Electro-mechanical Maintenance Cell KIT (220V 3-Phase) US	Electro-mechanical Maintenance Cell KIT teaches 79 skills in over 120 hours of LearnMate® lab instruction, includes Basic Maintenance Cell, Industrial Lighting, Plant Infrastructure, Conveyor, Drive and Control, Part Manipulator, Paint, Bake and Cool, Variable Frequency Drive, Advanced Infrastructure and Fault Insertion, Instructor Fault Insertion, DC Motor and Drive. Students receive 'work orders' to completely build the Maintenance Cell.	\$74,162
JM-EMMC-1600-2	Electro-mechanical Maintenance Cell KIT 220V (International)	Electro-mechanical Maintenance Cell KIT teaches 79 skills in over 120 hours of LearnMate® lab instruction, includes Basic Maintenance Cell, Industrial Lighting, Plant Infrastructure, Conveyor, Drive and Control, Part Manipulator, Paint, Bake and Cool, Variable Frequency Drive, Advanced Infrastructure and Fault Insertion, Instructor Fault Insertion, DC Motor and Drive. Students receive 'work orders' to completely build the Maintenance Cell. Includes step-down transformer package for 220V (10-PC09-0000) required for international applications.	\$78,496

Support & Upgrades

Part Number	Name	Description	2017 MSRP
Support & Travel			
50-0094-0000	Pre-Engineering, Design and Testing	Pre-sales visit for system design and consultation	\$1,735
50-0095-0000	Installation at Customer Site (Days)	Daily rate for Intelitek on-site installation and training on equipment	\$1,650
TRAVEL-EXPENSES	Travel Expenses	Flat rate fee for travel to Installation; Training or Support Sites. Three price ranges here, depending on length of time for support and distance traveled (larger amount for longer trips). Please contact our support team manager for a more accurate price quote for travel expenses based on your specific needs.	\$1,000
			\$2,500
			\$5,000
Robotics			
10-1031-2000	Upgrade Package ER 3/5 to ER4u	Upgrade Package ER 3/5 to ER4u	\$5,500
10-1031-3000	Upgrade Package ER 4pc/5plus to ER4u	Upgrade Package ER 4pc/5plus to ER4u	\$4,995
10-1032-0000	Upgrade Package ER 9 to ER 9Pro	Upgrade Package ER 9 to ER 9Pro	\$8,000
10-1032-1000	Upgrade Package ER 14 to ER 14Pro	Upgrade Package ER 14 to ER 14Pro	\$8,667
10-1032-3000	Upgrade Package ASRS36/72 to ASRS36/72 U	Upgrade Package ASRS36/72 to ASRS36/72 U	\$4,267
UPGR-PCI-SLM	SL Mill 0200 Upgrade. Package. PCI Card and Control Software	SL Mill 0200 Upgrade. Package. PCI Card and Control Software	\$1,537
UPGR-PCI-SLT	SL Lathe 0400 Upgrade. Package. PCI Card & Control Software	SL Lathe 0400 Upgrade. Package. PCI Card & Control Software	\$1,537
UPGR-PCI-PLM	Prolight 1000 Upgrade. Package. PCI Card & Control Software	Prolight 1000 Upgrade. Package. PCI Card & Control Software	\$1,537
UPGR-PCI-EXPM	eXpert Mill Package - PCI Card and Control Software	eXpert Mill 0600 - PCI Card and Control Software	\$1,537
UPGR-PCI-SPLM	SPLM Package - PCI Card and Control Software	SPLM Package - PCI Card and Control Software	\$1,537
UPGR-PCI-PLT	Prolight 3000 Upgrade. Package. PCI Card & Control Software	Prolight 3000 Upgrade. Package. PCI Card & Control Software	\$1,537
UPGR-PCI-ROUT	Router 8800 Upgrade. Package. PCI Card & Control Software	Router 8800 Upgrade. Package. PCI Card & Control Software	\$1,370
UPGR ER9->ER9Pro	Upgrade package - ER9 to ER9Pro	Upgrade package - ER9 to ER9Pro. Includes Installation, on-site training, and upgrade license for RoboCell	\$9,767
UPGR TO -ER4u	Upgrade package - ER 3 / ER5 to ER4U	Upgrade package - ER 3 / ER5 to ER4U. Includes upgrade to RoboCell license	\$6,000
UPGR TO ER4u	Upgrade package - ER4pc/ER5p to	Upgrade package - ER4pc/ER5p to ER4U. Includes upgrade to RoboCell license	\$5,495
OCIM-UPGINSTL&T1	Installation and Training for Upgrade > 5 Stations	Installation and Training for Upgrade > 5 Stations	\$23,950
OCIM-UPGINSTL&TR	Installation and Training for Upgrade 3 - 5 Stations	Installation and Training for Upgrade 3 - 5 Stations	\$19,000
OCIM-UPGR-16BIT	Upgrade OpenCIM 16BIT to latest version	Upgrade OpenCIM 16BIT to latest version	\$23,146
OCIM-UPGR-32BIT	Upgrade OpenCIM 32BIT to latest version	Upgrade OpenCIM 32BIT to latest version	\$38,846
OCIM-UPGR-ACL	Upgrade ACL-CIM to latest OpenCIM Version	Upgrade ACL-CIM to latest OpenCIM Version	\$28,946
ASRS-UPG-ACL-USB	Upgrade ASRS36/72 ACL to USB	Upgrade ASRS36/72 ACL to USB	\$5,947
Software Upgrades			
63-0601-0000	EXM0600, iCNC Software Upgrade	EXM0600, iCNC Software Upgrade	\$667
63-8801-0000	LMR8800, CNCBase software Upgrade	LMR8800, CNCBase software Upgrade	\$500
63-1003-0000	PLM1000, CNCBase Software Upgrade	PLM1000, CNCBase Software Upgrade	\$667
63-0201-0001	SLM 0200, Software Upgrade, Windows	SLM 0200, Software Upgrade, Windows	\$667
63-0401-0001	SLT 0400, Software Upgrade	SLT 0400, Software Upgrade	\$667
63-1004-0000	SPLM1000, iCNC Software Upgrade	SPLM1000, iCNC Software Upgrade	\$667
Packaging			
103214	Foam Pack Set ER 3, ER 4 and ER 5 Arm		\$72
31-1000-0089	Shipping Carton for ER 3, ER 4 and ER 5 (requires foam pack above)	22 x 21 x 16 in., dim wt. 50lbs	\$20
103050	Shipping Carton for 1 meter Linear Slide Base	56 x 15 x 10 in, dim wt.13lbs	\$75

MAKERBOT®



MakerBot Pricing - Call for quote - Promotions are not included in list below - Prices Subject to Change

ProductCode	Description	MSRP
PROBUNDLE	MakerBot Professional Bundle - 1 Year MakerCare	\$ 16,238.00
PROBUNDLE2	MakerBot Professional Bundle - 2 Year MakerCare	\$ 17,688.00
PROBUNDLE3	MakerBot Professional Bundle - 3 Year MakerCare	\$ 18,838.00
MINIPLUSEP	MakerBot Mini+ Essentials Pack - 1 Year MakerCare	\$ 1,957.00
MINIPLUSEP2	MakerBot Mini+ Essentials Pack - 2 Year MakerCare	\$ 2,107.00
MINIPLUSEP3	MakerBot Mini+ Essentials Pack - 3 Year MakerCare	\$ 2,207.00
REPEPLUS	MakerBot Replicator+ Essentials Pack - 1 Year MakerCare	\$ 3,627.00
REPPLUSEP2	MakerBot Replicator+ Essentials Pack - 2 Year MakerCare	\$ 3,977.00
REPPLUSEP3	MakerBot Replicator+ Essentials Pack - 3 Year MakerCare	\$ 4,227.00
Z18PACK	MakerBot Z18 Essentials Pack - 1 Year MakerCare	\$ 9,476.00
Z18PACK2	MakerBot Z18 Essentials Pack - 2 Year MakerCare	\$ 10,226.00
Z18PACK3	MakerBot Z18 Essentials Pack - 3 Year MakerCare	\$ 10,876.00
EDUPLUS	MakerBot Education Bundle - 1 Year MakerCare	\$ 7,304.00
EDUPLUS2	MakerBot Education Bundle - 2 Year MakerCare	\$ 8,004.00
EDUPLUS3	MakerBot Education Bundle - 3 Year MakerCare	\$ 8,504.00
SLPLUS	MakerBot Starter Lab Bundle - 1 Year MakerCare	\$ 44,529.00
SLPLUS2	MakerBot Starter Lab Bundle - 2 Year MakerCare	\$ 48,429.00
SLPLUS3	MakerBot Starter Lab Bundle - 3 Year MakerCare	\$ 51,429.00
MP05927	MakerBot Replicator 2X	\$ 2,499.00
MP05950	MakerBot Replicator Z18 3D Printer	\$ 6,499.00
MP07925	MakerBot Replicator Mini+	\$ 1,299.00
MP07825	MakerBot Replicator+	\$ 2,499.00
MP07016	MakerCare Preferred Protection Plan for MakerBot Replicator - 1 Year, Packaged	\$ 499.00
MP07017	MakerCare Preferred Protection Plan for MakerBot Replicator - 2 Year, Packaged	\$ 849.00
MP07018	MakerCare Preferred Protection Plan for MakerBot Replicator - 3 year, Packaged	\$ 1,099.00
MP07019	MakerCare Preferred Protection Plan for MakerBot Replicator - 1 Year Renewal, Packaged	\$ 499.00
MP07020	MakerCare Preferred Protection Plan for MakerBot Replicator Mini - 1 Year, Packaged	\$ 299.00
MP07021	MakerCare Preferred Protection Plan for MakerBot Replicator Mini - 2 Year, Packaged	\$ 449.00
MP07022	MakerCare Preferred Protection Plan for MakerBot Replicator Mini - 3 Year, Packaged	\$ 549.00
MP07023	MakerCare Preferred Protection Plan for MakerBot Replicator Mini - 1 Year Renewal, Packaged	\$ 299.00
MP07025	MakerCare Preferred Protection Plan for MakerBot Replicator Z18 - 1 Year, Packaged	\$ 999.00
MP07026	MakerCare Preferred Protection Plan for MakerBot Replicator Z18 - 2 Year, Packaged	\$ 1,749.00
MP07027	MakerCare Preferred Protection Plan for MakerBot Replicator Z18 - 3 Year, Packaged	\$ 2,399.00
MP07028	MakerCare Preferred Protection Plan for MakerBot Replicator Z18 - 1 Year Renewal, Packaged	\$ 999.00
MP07033	MakerCare Preferred Protection Plan for MakerBot Replicator 2/2X - 1 Year, Packaged	\$ 600.00
MP07034	MakerCare Preferred Protection Plan for MakerBot Replicator 2/2X - 1 Year Renewal Pre-60 Days After Expiration, Packaged	\$ 600.00
MP06998	MakerCare Protection Plan for MakerBot Replicator - 1 Year, Packaged	\$ 399.00
MP06999	MakerCare Protection Plan for MakerBot Replicator - 2 Year, Packaged	\$ 749.00
MP07000	MakerCare Protection Plan for MakerBot Replicator - 3 year, Packaged	\$ 999.00
MP07001	MakerCare Protection Plan for MakerBot Replicator - 1 Year Renewal, Packaged	\$ 399.00
MP07002	MakerCare Protection Plan for MakerBot Replicator Mini - 1 Year, Packaged	\$ 199.00
MP07003	MakerCare Protection Plan for MakerBot Replicator Mini - 2 Year, Packaged	\$ 349.00
MP07004	MakerCare Protection Plan for MakerBot Replicator Mini - 3 Year, Packaged	\$ 449.00
MP07005	MakerCare Protection Plan for MakerBot Replicator Mini - 1 Year Renewal, Packaged	\$ 199.00
MP07006	MakerCare Protection Plan for MakerBot Replicator Z18 - 1 Year, Packaged	\$ 799.00
MP07007	MakerCare Protection Plan for MakerBot Replicator Z18 - 2 Year, Packaged	\$ 1,549.00
MP07008	MakerCare Protection Plan for MakerBot Replicator Z18 - 3 Year, Packaged	\$ 2,199.00
MP07009	MakerCare Protection Plan for MakerBot Replicator Z18 - 1 Year Renewal, Packaged	\$ 799.00
MP07014	MakerCare Protection Plan for MakerBot Replicator 2/2X - 1 Year, Packaged	\$ 500.00
MP07015	MakerCare Protection Plan for MakerBot Replicator 2/2X - 1 Year Renewal Pre-60 Days After Expiration, Packaged	\$ 500.00
MP06133	MakerBot Filament Case for the MakerBot Replicator Z18	\$ 225.00
MP06134	MakerBot Cart for the MakerBot Replicator Z18	\$ 1,250.00
MP06972	MakerBot in the Classroom	\$ 50.00
MP06077	Build Plate Tape for MakerBot Replicator (Fifth Generation Model)	\$ 9.99
MP06460	Build Plate Tape for MakerBot Replicator Mini Compact 3D Printer	\$ 9.99
MP06626	Build Plate Tape for the MakerBot Replicator Z18	\$ 99.99
MP06627	Build Plates for the MakerBot Replicator Z18 3D Printer	\$ 125.00
MP06628	Grease Packet for the MakerBot Replicator Z18	\$ 9.99
MP06681	Build Plate for the MakerBot Replicator Desktop 3D Printer	\$ 80.00
MP06713	Precut Kapton Tape (10 pack) for the MakerBot Replicator 2X Experimental 3D Printer	\$ 30.00
112047-00	MakerBot Replicator+ Grip Surface 3-Pack	\$ 39.99
112048-00	MakerBot Replicator Mini+ Grip Surface 3-Pack	\$ 19.99
112032-00	MakerBot Replicator Mini+ Build Plate Kit	\$ 39.99
112031-00	MakerBot Replicator+ Build Plate Kit	\$ 59.99
MP07325	Smart Extruder+ for MakerBot Replicator & Replicator Mini	\$ 199.00
MP07376	Smart Extruder+ for MakerBot Replicator Z18	\$ 199.00
MP05795	Glow in the Dark PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 50.00
MP06045	Sparkly Dark Blue PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 25.00
MP06047	Sparkly Black PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 25.00
MP06115	Army Green PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 18.00

MP06116	Ocean Blue PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 18.00
MP06117	Khaki PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 18.00
MP06640	Peach PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 18.00
MP06641	Light Brown PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 18.00
MP06880	Robin's Egg PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 25.00
MP06881	Lemon Drop PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 25.00
MP06882	Jadeite PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 25.00
MP05785	Glow in the Dark PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 130.00
MP06101	Army Green PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 48.00
MP06102	Ocean Blue PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 48.00
MP06103	Khaki PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 48.00
MP06878	Lemon Drop PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 65.00
MP05759	Translucent Blue PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 25.00
MP05761	Translucent Green PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 25.00
MP05763	Translucent Red PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 25.00
MP05765	Translucent Orange PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 25.00
MP05767	Translucent Yellow PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 25.00
MP05769	Translucent Purple PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 25.00
MP05792	Natural PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 18.00
MP05612	Natural PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 48.00
MP05758	Translucent Blue PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 65.00
MP05762	Translucent Red PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 65.00
MP05764	Translucent Orange PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 65.00
MP05766	Translucent Yellow PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 65.00
MP05768	Translucent Purple PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 65.00
MP05787	True Orange PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 18.00
MP05788	True Purple PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 18.00
MP05789	True Red PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 18.00
MP05790	True White PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 18.00
MP05791	True Yellow PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 18.00
MP05793	Warm Gray PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 18.00
MP05794	Cool Gray PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 18.00
MP05796	True Blue PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 18.00
MP05823	True Black PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 18.00
MP05951	True Green PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 18.00
MP06049	Neon Pink PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 25.00
MP06051	Neon Orange PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 25.00
MP06053	Neon Green PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 25.00
MP06642	True Brown PLA Small Spool / 1.75mm / 1.8mm Filament	\$ 18.00
MP05775	True Black PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 48.00
MP05776	True Blue PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 48.00
MP05777	True Orange PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 48.00
MP05778	True Purple PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 48.00
MP05779	True Red PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 48.00
MP05780	True White PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 48.00
MP05781	True Yellow PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 48.00
MP05783	Warm Gray PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 48.00
MP05784	Cool Gray PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 48.00
MP05952	True Green PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 48.00
MP06050	Neon Orange PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 65.00
MP06052	Neon Green PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 65.00
MP06639	True Brown PLA Large Spool / 1.75mm / 1.8mm Filament	\$ 48.00
MP06233	True Black PLA Filament XL Spool	\$ 115.00
MP06236	Cool Gray PLA Filament XL Spool	\$ 115.00
MP06228	Cool Gray PLA Filament XXL Spool	\$ 225.00
MP06237	True Black PLA Filament XXL Spool	\$ 225.00
MP06238	True White PLA Filament XXL Spool	\$ 225.00
MP06239	Warm Gray PLA Filament XXL Spool	\$ 225.00
MP06973	Buy 9, Get 10 ABS Bundle	\$ 460.00
111752-00	MakerBot Slate Gray Tough PLA Filament Bundle for Replicator Z18	\$ 379.00
111746-00	MakerBot Slate Gray Tough PLA Filament Bundle for Replicator+ and Replicator (5th Generation)	\$ 379.00
MP01968	Natural ABS 1kg Spool 1.75mm / 1.8mm Filament	\$ 43.00
MP01969	True Black ABS 1kg Spool 1.75mm / 1.8mm Filament	\$ 48.00
MP01970	True White ABS Plastic 1kg Spool - 1.75mm / 1.8mm	\$ 48.00
MP01971	True Red ABS 1kg Spool 1.75mm / 1.8mm Filament	\$ 48.00
MP01972	True Green ABS 1kg Spool 1.75mm / 1.8mm Filament	\$ 48.00
MP01973	True Blue ABS 1kg Spool 1.75mm/1.8mm Filament	\$ 48.00
MP01975	True Yellow ABS 1kg Spool 1.75mm / 1.8mm Filament	\$ 48.00
MP01978	True Orange ABS 1kg Spool 1.75mm / 1.8mm Filament	\$ 48.00
MP02901	True Purple ABS 1kg Spool 1.8mm Filament	\$ 48.00
MP02915	True Gray ABS 1kg Spool 1.8mm Filament	\$ 48.00
MP06572	Large 10 Pack Filament Bundle: Buy 9, Get 10	\$ 430.00

MP06591	Small 10 Pack Filament Bundle: Buy 9, Get 10	\$	160.00
MP05188	MakerBot Flexible Filament	\$	130.00
MP05417	MakerBot Dissolvable Filament	\$	65.00





Metal Series		Metal X	WASH-1	SINTER-1	SINTER-2
SKU		F-PR-5000	F-PR-0001	F-SR-0001	F-SR-0002
Includes	Metal X 3D Printer	X			
	Washing Station: WASH-1		X		
	Sintering Oven: SINTER-1			X	
	Sintering Oven: SINTER-2				X
	Eiger Software (Cloud and/or Local Storage, SSO 2 Factor Authentication, Admin Portal)				
	17-4 Stainless Steel Material	X	X	X	X
	Metal X build plate	1kg			
	Metal quick-change nozzles	3			
Price	NAM ROW RETAIL	\$99,500.00	\$9,990.00	\$14,990.00	\$49,990.00

Industrial Composite Series		X3	X5	X7
SKU		F-PR-3004	F-PR-3005	F-PR-3002
Includes	X7 3D Printer			X
	X5 3D Printer		X	
	X3 3D Printer	X		
	Eiger Software (Cloud and/or Local Storage, SSO 2 Factor Authentication, Admin Portal)			
	Onyx Filament	X	X	X
	Fiberglass Filament	800 cm ³ (48.92"³)	800 cm ³ (48.92"³)	800 cm ³ (48.92"³)
	Carbon Fiber		50 cm ³ (3"³)	50 cm ³ (3"³)
	Kevlar			150 cm ³ (9.15"³)
	High Temp Fiberglass			50 cm ³ (3"³)
	CFF quick-change nozzle			50 cm ³ (3"³)
	FFF quick-change nozzle	3	3	3
	True Bed build plate	1	1	1
	Laser In-Process Inspection			X
	Laser assisted calibration	X	X	X
	50 Micron Resolution	X	X	X
	Material Scale	X	X	X
Price	NAM ROW RETAIL	\$36,990.00	\$49,990.00	\$69,000.00

Desktop Composite Series		Onyx One	Onyx Pro	Mark Two (Onyx)
SKU		F-PR-4001	F-PR-4002	F-PR-2017
Includes	Mark Two 3D Printer			X
	Onyx One 3D Printer	X		
	Onyx Pro 3D Printer		X	
	Eiger Software (Cloud and/or Local Storage, SSO 2 Factor Authentication, Admin Portal)			
	Onyx Filament	X	X	X
	Fiberglass Filament	800 cm ³ (48.8"³)	800 cm ³ (48.8"³)	800 cm ³ (48.8"³)
	Carbon Fiber		50 cm ³ (3.05"³)	50 cm ³ (3"³)
	Kevlar			100 cm ³ (6.1"³)
	High Temp Fiberglass			50 cm ³ (3"³)
	CFF quick-change nozzle		3	3
	FFF quick-change nozzle	3	3	3
	True Bed build plate	1	1	1
	Laser In-Process Inspection			X
	Laser assisted calibration	X	X	X
	50 Micron Resolution	X	X	X
	Material Scale	X	X	X
Price	NAM ROW RETAIL	\$3,499.00	\$6,999.00	\$13,499.00

Nylon SKUs		Mark Two (Nylon)	X7 (Nylon)
SKU		F-PR-2018	F-PR-3003
Includes	X7 3D Printer		X
	Mark Two 3D Printer	X	
	Eiger Software (Cloud and/or Local Storage, SSO 2 Factor Authentication, Admin Portal)		
	Nylon Filament	X	X
	Onyx Filament	800 cm ³ (48.92"³)	800 cm ³ (48.92"³)
	Fiberglass Filament	50 cm ³ (3"³)	50 cm ³ (3"³)
	Carbon Fiber	150 cm ³ (9.15"³)	100 cm ³ (9.15"³)
	Kevlar	50 cm ³ (3"³)	50 cm ³ (3"³)
	High Temp Fiberglass	50 cm ³ (3"³)	50 cm ³ (3"³)
	CFF quick-change nozzle	3	3
	FFF quick-change nozzle	3	3
	True Bed build plate	1	1
	Laser In-Process Inspection		X
	Laser assisted calibration	X	X
	50 Micron Resolution	X	X
	Material Scale	X	X
Price	NAM ROW RETAIL	\$13,499.00	\$69,000.00

Mastercam®

AUTHORIZED | EDUCATIONAL RESELLER

Educational Suite

Mastercam Educational Suite

\$750

Includes the following software modules:

Design

Engrave

Lathe

Mastercam for SOLIDWORKS (Mill & Lathe)

Mill 3D (includes Rotary 4-axis)

Rast2Vec

Router 3D

Solids

True Shape Nesting

Wire EDM

Data Translators: ASCII, CADL, DWG, DXF, EPS, IGES, Inventor (IPT, IDW, IAM), KeyCreator (CKD), Parasolids, Rhino 3DM,

SOLIDWORKS (SLDPRT, SLDASM, SLDDRW), SAT (ACIS Solids), Solid Edge (PAR & PSM), SpaceClaim (SCDOC), STEP, STL, VDA, PRO/E (read only)

Notes:

Multiaxis (5-axis) motion is an optional add-on product.

Substitutions or deletions are not permitted with Educational Suite.

Educational version saves to EMCX format. This is not compatible with industrial installations.

Maintenance: Listed price **does not include** 12 months of Maintenance for new customers or new suites for customers with no Maintenance. Customers with current Maintenance must match existing Maintenance expiration date prorated at a rate of \$10 per month.

Additional Products

Design

\$115

Full 3D design package for creating and modifying complex surfaces and solids modeling.

Instructor License

\$250

Includes same software modules as Educational Suite as well as Art and all add-on licenses the associated school has.

QuickPart

\$500

Independent Mastercam software designed to have students cut parts the first day. X7 platform.

Contact Educational Sales for volume discounts.

Network HASP

\$100

For NetHASP installations, seat count is determined by the number of Mill seats on the NetHASP. Timing of NetHASPs is optional. Replacement for *untimed* lost/stolen NetHASPs is \$500 each. Must have network administrator.

Add-on Products

Note: Products listed below are not available for Demo/HLE or Design.

Multiaxis (per seat)

\$100

Simultaneous 4 and 5-axis machining capability.

Mastercam Art (per seat)

\$250

Tool to transform 2D graphic files into 3D Geometry and Special Toolpaths.

Disclaimer

Prices effective January 16, 2017 and are subject to change without notice. Prices listed do not contain Mastercam Maintenance unless noted. All prices listed are suggested retail pricing for educational markets and are in US Dollars.

Port Expert (per seat) Creates accurate, efficient engine cylinder head porting toolpaths on surface or solid data.	\$350
Blade Expert (per seat) Custom application designed to generate efficient, smooth, and gouge-free toolpaths for multi-blade parts.	\$2,500
Mill-Turn first seat with one machine environment Additional seats, each Additional Environments, each	\$3,000 \$500 \$2,500
Renishaw Productivity+™	\$100

Updates/Upgrades

All Mastercam updates and upgrades include Maintenance.

Mastercam X9, X8, X7, X6 Update Update seats of Mastercam X6 through X9 to Mastercam 2017. For existing customers with Maintenance, price listed includes Maintenance up to current expiration date, or 12 months, whichever is less.	\$250
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Mastercam X5 and Older (sunsetted software) Update	\$500
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Design Update and Maintenance	\$75
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Design Upgrade to Educational Suite	Current list price difference
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Maintenance – for Mastercam 2017

Pricing is per educational seat. Schools with a NetHASP that want Maintenance on only a portion of their seats will be required to split their seats between two NetHASPs. This procedure requires a SIM swap, replacing the existing NetHASP with two NetHASPs. An additional NetHASP fee of \$100 will be charged for this procedure.

New seats added to NetHASP on Maintenance must have Maintenance prorated to coincide with NetHASP expiration date.

Per Seat	\$120
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Instructor Update and Maintenance No charge if school purchases update or Maintenance at same time.	\$120
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Design Maintenance	\$60
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Post Processors

General 2- and 3-axis posts from standard library	Included
Edits, changes, custom, and 5-axis post processors	Reseller Quote

Disclaimer

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Mastercam 2017

Educational Reseller Suggested Retail Price List

CONFIDENTIAL

January, 2017

Mastercam for SOLIDWORKS® (Included in Educational Suite and also available as a standalone product.)

Initial Purchase

Quantity	Price	Quantity	Price
1	\$300	45	\$6,100
10	\$2,500	60	\$6,900
20	\$4,000	100	\$7,500
30	\$5,000	Instructor Seat	\$300

Multiaxis add-on: \$100 (per seat)

Educational Mastercam for SOLIDWORKS® includes both Mill and Lathe Toolpaths.

***Purchase price includes up to one year of Maintenance.** Existing Mastercam customers with Maintenance must match current expiration date.

Existing copies of Mastercam cannot be traded in for credit towards Mastercam for SOLIDWORKS®.

Mastercam for SOLIDWORKS® is sold in the above packaged quantities only. These quantity increments are the same as SOLIDWORKS. Customers requiring quantities not listed must combine the quantities, e.g., if 25 seats are needed, purchase one 30 or one 20 and 5 singles.

Quantities cannot be broken. For example, a 30 cannot be sold as 29 seats on a NetHASP and one standalone. It must be sold as a 30 with an additional seat.

Package prices require the use of a NetHASP. If individual HASPs are needed instead of a NetHASP for a package price, a \$10 charge will be incurred for each HASP. Additional NetHASPs will incur a fee of \$150 each.

Supported SOLIDWORKS versions: SW2014, SW2015, SW2016. 64-bit only.

Pricing does not include SOLIDWORKS®.

Maintenance

Quantity	Price	Quantity	Price
1	\$72	45	\$1,464
10	\$600	60	\$1,656
20	\$960	100	\$1,800
30	\$1,200	Instructor Seat	\$72

Update Pricing: Update price is ½ of list price and includes up to one year of Maintenance. One seat for \$150, 10 = \$1,250, 20 = \$2,000, 30 = \$2,500, etc.

Disclaimer

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Mastercam University & Mastercam Certification

Internet based curriculum for individual or classroom use. Timed for one year from date of enrollment.

Single Student Subscription (per course)

\$100

- Mill Design and Toolpaths
- Mastercam for SOLIDWORKS®
- Advanced Mill Design and Toolpaths
- Mastercam Multiaxis (Curve/Drill/Circle Mill)
- Lathe Design and Toolpaths
- Principles for Machining (STEM) included with Mill Design and Toolpaths and Lathe Design and Toolpaths courses

Mastercam Associate Level and Professional Level Certification tests are included with Mastercam U subscriptions.

Student must be enrolled in a Mastercam course at a learning institution. Student subscriptions are timed for one year from date of enrollment. One Mastercam Demo/Home Learning Edition download is included with each subscription.

(Non-Student \$249)

Mastercam Essentials (Per Course)

\$50

The Mastercam Essentials Courses are excellent small courses meant to prepare students for in-person Reseller training classes. The courses review basics on the interface, creating toolpaths, and the basics of using Mastercam. It is not meant to be stand-alone training curriculum on Mastercam, and should be considered a prerequisite for more detailed training.

- Mill Essentials
- Lathe Essentials
- Mastercam Essentials

Classroom Subscription (15 single module subscriptions)

\$1,200

Mill Design and Toolpaths

Advanced Mill Design and Toolpaths

Mastercam Multiaxis

Lathe Design & Toolpaths

Principles for Machining

For instructors who want to order subscriptions in advance to be distributed to students as appropriate. Includes 15 subscriptions (all of the same course) and 15 Demo/Home Learning Edition downloads. Also includes 15 Mastercam Certification tests. See below for details. Classroom subscriptions must be purchased through a school purchase order. Subscriptions are timed for one year from date of enrollment.

Buy 10+, Get 10+

For all quantities of subscriptions 10 and over, we will match the same number of subscriptions for free. Courses may be mixed and matched, resulting in even numbers. For example, buy 7 Mill Design & Toolpaths courses and 5 Lathe Design & Toolpaths courses and receive a total of 14 Mill Design & Toolpaths courses and 10 Lathe Design & Toolpaths courses. Subscriptions do not all have to be activated at the same time. However, unactivated subscriptions will time out three years after the date of purchase.

Instructor Certification Course

\$250

Prepares instructors to certify students. Timed for one year from date of enrollment.

Includes:

- Mill Design and Toolpaths course
- Lathe design and toolpaths course
- Principles for Machining (STEM) course
- Mastercam Certification Testing Procedure
- CPgmM (Professional Certification Test)
- Mastercam Demo/Home Learning Edition download

Disclaimer

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MillerWelds.com/trainingsolutions



Part #	Description	Miller Suggested Price (MSP)	
951689	AugmentedArc Augmented Reality Welding System	\$21,990	
	Includes:		
	Augmented Reality System		
	Teacher Software		
	Augmented Reality Helmet with communication cable		
	Work Stand for out-of-position applications		
	SMAW Stinger with one electrode		
	GMAW/FCAW (MIG) Gun		
	MIG Gun AR Tip (1)		
	GTAW (TIG) Torch		
	TIG Torch AR Tip (1)		
	TIG Filler Rod (1)		
	Lap Joint coupon		
	Butt Joint Coupon		
	T joint coupon		
	Butt Pipe Coupon		
	Pipe to Plate coupon		
	Software for Steel, Stainless Steel, & Aluminum applications		





Bill To:	email:
Ship To:	PO#:
Phone Number:	Acct Number:

Item #	Description	SRP	Qty	Total
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Mobile STEM Labs

35037	ROK Blocks Mobile STEM Lab	\$299.99		
35031	SnapStack Mobile STEM Lab	\$199.99		
35029	Advanced Projects Mobile STEM Lab	\$1,299.99		
35041	Basic Robotics Mobile STEM Lab	\$249.99		
35051	Engineering Pathways Mobile STEM Lab	\$699.99		
35055	Basic Robotics Upgrade Kit	\$499.99		
35057	Wheeled Base	\$59.99		
39905a	VAR Demo Kit	\$749.99		

Component Sets

08297	Maker ROK Bot Chassis	\$99.99		
20-00346	Rokenbok Tool (6)	\$5.99		
20-00340	Blue Blocks (24)	\$19.99		
10915	Red Blocks (72)	\$34.99		
24801	Risers (24)	\$19.99		
20-00349	Single Snap Block (24)	\$9.99		
24821	Double Snap Block (24)	\$12.99		
20-00356	Full Beams (48)	\$29.99		
20-00347	Half Beams (48)	\$24.99		
20-00341	Curved Beams (24)	\$34.99		
20-00357	Small Curved Beams (24)	\$24.99		
24823	Mini Curved Beams (24)	\$19.99		
04817	S-Beams (12)	\$19.99		
20-00327	Gear Teeth (160)	\$24.99		
04890	ROK Balls (50/50)	\$7.99		
20-00348	Trailer Hitch (24)	\$9.99		
20-00355	Snap-on Wheels (24)	\$19.99		
20-00352	Axle Block (24)	\$12.99		
20-00353	Hinge Block (24)	\$12.99		
20-00354	Pulley Block (24)	\$12.99		
20-00351	30 Degree Block (24)	\$9.99		
20-00350	60 Degree Block (24)	\$9.99		
20-00339	String Blocks w/String (6)	\$9.99		
20-00342	Corbels (24)	\$9.99		
20-00343	Girder (24)	\$9.99		
20-00344	Two Way Brace (24)	\$9.99		
20-00345	Three Way Brace (24)	\$9.99		
24807	Snap in Spool & Cog (2 of each)	\$9.99		
24865	Lead Screw Assembly Set	\$15.99		
24819	Scoop, Bed, Blade, Forks Set (1 of each)	\$15.99		
24803	Motor Module w/M-M Cable (1 of each)	\$24.99		
24805	Bearing Module (1)	\$9.99		
24815	M-M Cable (2)	\$12.99		
24817	M-F Cable (2)	\$12.99		
24825	Snap-in Seat (4)	\$9.99		
24827	ROK Block Wedge (24)	\$24.99		
24829	ROK Block 2x2 (24)	\$24.99		
24831	ROK Block 2x3 (24)	\$29.99		
24833	ROK Block 2x4 (24)	\$29.99		
10941	Forks (1)	\$6.99		
09905	Introduction Kit - Catapult /Phone Holder	\$9.99		



21st Century
Technology for
Language
Learning

SANS Price List

Model	Description	US Suggested List Price
SANS HEADSETS		
SHS-83	SANS Analog Headset	\$80.00
SHS-83U	SANS USB Headset	\$90.00
SHS-100	SANS USB or Analog Headset	\$138.00
SHS-100 USB Cord - Green	USB Green Replacmeent Cord	\$31.00
SHS-100- Ear Pad	One Pair of Earpads	\$10.00
SHS-100 Sanitary Covers	One Pair of Disposable Earpad Covers and Mic Cover - Minimum of 50 per order	\$1.50



Corporation



OMNI-COMM Pricing beginning March 1st, 2018 through January 1, 2019

Educational Pricing

Admin/Server 3 monitor (3 License)	\$13,264.34
Call-taker/Dispatcher 3 monitor (3 License)	\$5,569.21
Role-player 2 monitor (2 License)	\$4,511.40
Portable Admin/Server (3 License)	\$13,719.04
Portable 3 Position (9 License)	\$16,202.13



- a) Science
 - b) Technology
 - c) Engineering
 - d) Mathematics
 - e) ~~All of the above~~
- ROBOTICS**



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