

## Alabama CTE Equipment List

This list is based on a classroom size of 25 students and meets minimum standards. All costs are estimated. No specific equipment vendor or brand names are endorsed, but school districts should consult with stakeholders to ensure industry-recognized equipment and software are purchased. The intent of this list is to provide school districts with guidance on the equipment needed to cover the state standards for a Modern Manufacturing program and are not meant to dictate the number of students that can safely fit in a classroom and/or laboratory.

### Cluster: Manufacturing

### Program: Modern Manufacturing

#### CLASSROOM EQUIPMENT

TOTAL: \$13,525

QUANTITY	ITEM DESCRIPTION	UNIT	TOTAL
5	Computer/device with Current Operating System	\$1,000	\$5,000
1	Industry related (simulation) software package	\$2,500	\$2,500
1	Copy Machine, own or have accessibility to use	\$500	\$500
1	Technology- LCD projector	\$2,500	\$2,500
1	Laser Printer, color	\$500	\$500
1	3-D Printer	\$1,000	\$1,000
1	Whiteboard	\$250	\$250
2	Filing Cabinets	\$100	\$200
3	File Sets	\$25	\$75
1	MSSC Unlimited Instruction	\$1000	\$1000

#### PROGRAM EQUIPMENT (Items over \$250)

TOTAL: \$24,825

QUANTITY	ITEM DESCRIPTION	UNIT	TOTAL
1	Ohmmeter	\$1,000	\$1,000
1	Voltmeter	\$750	\$750
1	Handheld HART Communicator	\$500	\$500
1	Malfunction Process Calibrator	\$800	\$800
1	Documenting Process Calibrator	\$1,000	\$1,000
1	Fluke 789 Process Meter	\$1,200	\$1,200
1	Process Control Test Meter	\$500	\$500
1	Calibration Meter	\$400	\$400
1	Pneumatic Transmitter	\$500	\$500
1	Electronic Transmitter	\$300	\$300
1	Vacuum Casting Machine	\$2,200	\$2,200
1	Molder/Planer Machine	\$1,600	\$1,600
1	Hot Foil Stamping Machine	\$1,400	\$1,400
1	Air Compressor with Hose and Fittings	\$1,200	\$1,200
1	Arbor Press	\$800	\$800
1	Chain Fall	\$350	\$350

1	Clamps (Various-Including but not limited to the following: C-clamp, F-clamp, Clutch Clamp, Parallel Clamp, Pipe Clamp, Trigger Clamp, Spring-hand Clamp, Ratcheting Hand Clamp, Bandy Clamp, Gripping Edge Clamp, Dual-spindle Edge Clamp, C-Clamp Edge Clamp, Hose Clamp, Strap Clamp, Wooden Hand Screw Clamp, Locking Plier Clamp, Corner Clamp, Toggle Clamp, Fence Clamp, Drill Press Clamp, Spring Miter Clamp, Locking Chain Clamp, Straight-edge Clamp, Table Clamp, Self-squaring Frame Clamp, Cabinet Face Clamp)	\$300	\$300
1	Come-along (1 ½ Ton)	\$350	\$350
1	Double Insulated Power Tools	\$1,200	\$1,200
1	Rasps Kit	\$400	\$400
5	Lanyards	\$365	\$1,825
1	Ratchet Chain Hoist	\$500	\$500
1	Impact Wrench (3/4" Drive with Impact Sockets)	\$450	\$450
1	Grinder (Detail)	\$300	\$300
1	Grinder (Bench/Pedestal)	\$400	\$400
1	Hydraulic Press (Minimum 20 Ton)	\$400	\$400
1	Portable Crane (8.2'-12.5', 4000lb Capacity)	\$2,000	\$2,000
1	Saw (Portable Band)	\$350	\$350
1	Saw (Miter)	\$350	\$350
2	Tool Chest	\$750	\$1,500

**INSTRUCTIONAL SUPPLIES** (Items under \$250)

TOTAL: \$9,578

QUANTITY	ITEM DESCRIPTION	UNIT	TOTAL
3	Eye Protection (Pack of 12)	\$15	\$45
1	Saw (Compound Miter)	\$250	\$250
1	25' Tape Measurer	\$25	\$25
2	Tool Box	\$100	\$200
1	4-leg Chain Sling Kit (5/16" x 5')	\$130	\$130
4	Lifting Eyes (Sets)	\$40	\$160
1	Saw (Circular)	\$150	\$150
1	Saw (saber)	\$50	\$50
1	Saw (Reciprocating)	\$100	\$100
1	Pneumatic Nail Gun	\$200	\$200
1	Drill Bits-1/16"-1/2"	\$140	\$140
1	Drill Bit Kit (Fractional)	\$10	\$100
1	Drill Bit Kit (Metric)	\$50	\$50
1	Drill Bit Kit (Numbered)	\$40	\$40
1	Drill Bit Kit (Lettered)	\$80	\$80
2	Drill Bit Kit (Masonry)	\$25	\$50
1	Professional Soldering Gun Kit (260-watt/200w)	\$60	\$60
1	Oxy-Acetylene Torch Set	\$140	\$140
1	Portable Hydraulic Ram (Minimum of 10 Ton)	\$100	\$100

4	Screwdriver (Phillips 1" #2)	\$14	\$56
4	Screwdriver (Phillips 6" #1, #2)	\$10	\$40
4	Screwdriver (Phillips 12" #3)	\$10	\$40
6	Screws (Assorted Kit)	\$30	\$180
1	Inspection Mirror	\$20	\$20
2	Files and Handles (12"-Fine)	\$20	\$40
2	Files and Handles (12"-Coarse)	\$20	\$40
2	Files and Handles (12"-Half Round)	\$20	\$40
1	Post Hole Diggers	\$40	\$40
N/A	Scrap Metal for Cutting	MP	MP
N/A	Scrap Wire for Cutting	MP	MP
1	Square Shovel	\$40	\$40
1	Spade Shovel	\$40	\$40
1	Shovel	\$40	\$40
1	Trench Shovel	\$40	\$40
4	Socket Set-1/4" Drive 3/16"-1/2" (U.S. Deep)	\$50	\$200
4	Socket Set-1/4" Drive 3/16"-1/2" (US Standard Depth)	\$50	\$200
4	Socket Set-1/4" Drive 4mm-13mm (Metric Deep)	\$50	\$200
4	Socket Set-1/4" Drive 4mm-13mm (Metric Standard Depth)	\$50	\$50
4	Socket Set-1/4" (Drive Extensions-Short, Medium, and Long)	\$10	\$40
4	Socket Set-1/4" Drive Ratchet Handle	\$20	\$80
4	Socket Set-1/4" Drive Universal Joint	\$30	\$120
4	Socket Set-3/8" Drive 3/8" – 3/4" (U.S. Standard Depth, 12-point, Impact or Chrome)	\$50	\$200
4	Socket Set-3/8" Drive 3/8"-3/4" (U.S. Deep)	\$50	\$200
4	Socket Set-3/8" Drive 3/8"- (U.S. Standard Depth, 6-point, Impact or Chrome)	\$50	\$200
4	Socket Set-3/8" Drive 10mm-19mm (Metric Standard Depth, 6-point, Impact or Chrome)	\$50	\$200
4	Socket Set-3/8" Drive 10mm-19mm (Metric Deep, 6-point, Impact or Chrome)	\$50	\$200
2	Socket Set-3/8" (Drive Extensions-Short, Medium, and Long)	\$40	\$80
4	Socket Set-3/8" Drive Ratchet Handle	\$40	\$160
4	Socket Set-3/8" Drive Universal Joint	\$50	\$200
1	Socket Set-1/2" Drive 1/2"-1 1/8" (Shallow, Impact, or Chrome)	\$140	\$140
1	Socket Set-1/2" Drive 7/16"-1 1/8" (Deep, Impact, or Chrome)	\$140	\$140
1	Socket Set-1/2" Drive 13mm-32mm (Shallow, Impact, or Chrome)	\$140	\$140
1	Socket Set-1/2" Drive 13mm-32mm (Deep, Impact, or Chrome)	\$140	\$140
1	Socket Set-1/2" Drive Breaker Bar	\$15	\$15

1	Socket Set-1/2" (Drive Extensions: 3', 6', and 12')	\$50	\$50
4	Socket Set-1/2" Drive Ratchet Handle	\$20	\$20
2	Socket Set-1/2" Drive Universal Joint	\$10	\$10
1	Socket Set-3/4" Drive	\$50	\$50
1	Socket Set Allen Drivers (Standard 3/16"-1/2")	\$140	\$140
1	Socket Set Axle Nut Socket	\$80	\$80
1	Socket Set Crows Feet (Standard and Metric)	\$140	\$140
1	Socket Set Torx Drivers (T-15-T-55)	\$40	\$40
1	Square (Steel Combination)	\$20	\$20
1	Square (Steel Framing)	\$20	\$20
1	Square (Steel Rafter)	\$20	\$20
1	10' Hand Chain Hoist (1-ton 2200 lb. capacity)	\$100	\$100
2	Adjustable Wrenches (Up to 18")	\$80	\$80
1	Air Ratchet Wrench-3/8" Drive (With Impact Socket Set Standard and Metric)	\$100	\$100
1	Wrench Kit (Standard-1/4"-1 1/4")	\$135	\$135
1	Wrench Kit (Metric-7mm-24mm)	\$50	\$50
2	Combination Wrench Set (3/8"-1 1/2" and 6mm-24mm)	\$150	\$300
1	Combination Wrench Set (3/8"-3/4" Offset)	\$100	\$100
1	Combination Wrench Set (7mm-15mm Offset)	\$100	\$100
2	Flare Nut Wrench Set (Standard 3/8"-3/4")	\$50	\$100
2	Flare Nut Wrench Set (Metric 7mm-19mm)	\$40	\$40
1	Impact Wrench (1/2" Drive with Impact Sockets)	\$150	\$150
1	Pliers (Adjustable Joint)	\$20	\$20
1	Pliers (Combination-6")	\$10	\$10
1	Pliers-Crimper/Stripper (Electrical)	\$20	\$20
1	Pliers (Hose Clamp)	\$45	\$45
1	Pliers (Locking Jaw)	\$20	\$20
1	Pliers (Needle Nose-6")	\$12	\$12
1	Pliers (Side-cutting)	\$10	\$10
1	Pliers (Slip Joint-Water Pump)	\$25	\$25
1	Pliers-Snap Ring (External)	\$90	\$90
1	Pliers-Snap Ring (Internal)	\$90	\$90
1	Pliers-Wheel Weight	\$20	\$20
2	Plumb Bobs	\$100	\$200
1	Pry Bar (Rolling Head)	\$40	\$40
1	Pry Bar (Straight)	\$30	\$30
1	Punches (Center)	\$30	\$30
1	Punches (Brass Drift)	\$40	\$40
1	Punch Kit (Pin: 1/8", 3/16", 1/4", and 5/16")	\$25	\$25
1	Punch Kit (Taper: 3/8", 1/2", and 5/8")	\$40	\$40
1	Punches 3/16"-3/8"	\$25	\$25
1	Punches Starter 3/16"-3/8"	\$25	\$25
1	Punches (Aligning Punch Set)	\$20	\$20
1	Punches (Brass Punch)	\$70	\$70
1	Punches (Center Punch)	\$30	\$30

1	Torque Angle Guage	\$250	\$250
1	Torque Multiplier with Adapters	\$80	\$80
1	Torque Wrench-3/8" (Drive: 0-150lb./in.)	\$60	\$60
1	Torque Wrench-3/8" (Drive: 0-100lb./ft.)	\$25	\$25
1	Torque Wrench-1/2" (Drive: 0-250lbs)	\$60	\$60
1	Torque Wrench-3/4" (Drive: Up to 600lbs./ft)	\$80	\$80
2	Utility Knives	\$10	\$20
5	Boxes of 8.5" x 11" Paper	\$40	\$200
2	Dust Pans	\$5-10	\$10
2	Garbage Can (with Casters)	\$75	\$150
2	Mop	\$20	\$40
1	Mop Bucket	\$50	\$50
2	Floor Squeegee	\$20	\$40
3	Storage/Filing Cabinet	\$100	\$100

**OPTIONAL EQUIPMENT/SUPPLIES**

ITEM DESCRIPTION
Air Hammer with Chisels
Diagnostic Information Reader (PC or Data Scan Tool and Software)
Pneumatic Trainer
Hydraulic Trainer
Programmable Logic Controller (PLC)

**Category Totals:**

Classroom Equipment	\$13,525
Program Equipment	\$24,825
Instructional Supplies	\$9,578
<b>Estimated Program Total</b>	<b>\$47,928</b>