

Electrical Controls and Instrumentation Tools List:

REQUIRED:

- One pair of OSHA approved, clear lensed safety glasses. If the student wears prescription glasses they must be approved safety lenses or use stick on bi focal lenses
- One padlock to secure tools
- Tool pouch, bag or box (lockers provide area = 23" deep x 13" high x 12" wide)
- Professional grade digital multi meter and clamp type meter strongly suggested
 - (i.e. Ideal 61-746 or Fluke 323)
- Wire Numbers ***Typical Brands: Brady, 3M, Ideal, Panduit (Minimum of 3 Books)
 - Must minimally include numbers 0 – 9. Using two single digits will allow student to create numbers above 9.
- Electrical Tape
 - (1) roll – Black Electrical tape
 - (1) roll – White Electrical Tape
 - (1) roll – Red Electrical Tape
- 1/4" x 1 1/4" glass Fuses: (available through automationdirect.com)
 - 10 amp – minimum 10 (automation direct part# MDL 10)
 - 5 amp – minimum 15 (automation direct part# MDL 5)
 - 2 amp – minimum 15 (automation direct part# AGC 2)
 - 1/2 amp – minimum 15 (automation direct part# AGC -5)
- Wire nuts:
 - Box of yellow- 1 Box
- Screws:
 - #10 x 3/4" pan head screws
 - #8 x 3/4" pan head screws
 - 10-32 x 3/4" pan head screws
 - 8-32 x 3/4" pan head screws
 - Green Equipment Ground Screws
 - Wood Screws (1.5")
- Set of quality drill bits up to half inch
- Washers (#8 and #10)
- Fine tip permanent marker (Sharpie)
- Pencil (#2 at least 4)
- Highlighters
- Instrumentation Screwdriver Set
- 16" Hacksaw
 - 32T hacksaw blades of professional quality (i.e. Lennox, Klein, Ideal, etc.)
- Five (5) slotted-head screwdrivers: (Suggested Insulated)
 - 3/32"

- 1/8" (at least 6" shank)
- 3/16" (at least 6" shank)
- 1/4" (at least 6" shank)
- 1/8" (2" shank)
- Three (3) Phillips head screwdrivers: (Suggested Insulated)
 - #2 tip (at least 4" shank)
 - #1 tip (at least 3 1/8" shank)
 - #0 tip (2" shank)
- Insulated side-cutting pliers, also referred to as lineman's pliers (8" or 9")
- Insulated diagonal-cutting pliers (6" or 7")
- Insulated needle-nose pliers (6" or 8")
- Scratch awl
- 9" magnetic torpedo level
- Combination tool: Wire stripper, crimping tool, bolt cutter (i.e. Klein 1010)
 - Professional grade required and must strip wire from front of tool
- Tape measure (12' minimum)
- Fuse puller (automationdirect.com #FP-2)
- Utility Knife with retractable blade
- Small wire ties (zip ties) – minimum 100 count
- Box of orange wire nuts-1 Box

OPTIONAL:

- Katapult Wire Stripper and Cutter for 8-20 AWG Solid and 10-22 AWG Stranded Wire (Klein)
- Professional grade screw holding screw driver (i.e. Klein sk234)
- Professional grade step drill
- Center Punch
- Headlight or Magnetic light.