



Competitive Event Prep Chapter 8

Schematic Diagram

Identify

Several competitive events sponsored by TSA, Skills USA, and FIRST require students to design, analyze, and troubleshoot a variety of electronic circuits. Judges value the quality of the final product and the student's understanding and application of standard electronic concepts.

Set Up

Identify a subsystem in a recent project that included electronics or circuit design. Research the specific characteristics of certain components (nominal voltage, amperage, torque, and RPM). Download or locate free schematic software.

Execute

With the schematic software, develop a schematic diagram that properly displays each schematic symbol. Label all components of the circuit. Demonstrate an understanding of Ohm's Law by proving that the appropriate components (resistors, loads, and so on) were chosen.

Evaluate

Would a classmate unfamiliar with your final product be able to replicate the circuit using just your schematic diagram?

Share

Locate a classmate's schematic diagram and build their circuit. If components or details are missing, provide guidance as to what additional information needs to be included prior to the competition.