

# CIRCUIT WIZARDRY

**Description:** Test and prediction based upon various simple direct currents.

**Number of Participants:** 2

**Competition:**

1. The event consists of between two and four of the parts below:
  - **Circuit Cards or Boxes:** Team will be given four [4] different mystery circuit cards or boxes to determine the wiring of each. This will be done by the team constructing a circuit tests using a D-cell, bulb and two wires. That circuit tester will be used to determine the wiring of the cards or boxes. The cards or boxes will have from zero [0] to three [3] circuits. A circuit may involve as many as three sites. One point will be given for each correctly identified circuit, whether connected or not.
  - **Prediction Sheets:** Team will be given twenty [20] circuit problems and need to predict whether the bulb will light or not light for each. One point will be awarded for each correct answer.
  - **Inference Cards with Multiple Choices Answers:** Team will use its circuit tester to test and infer all possible wiring schemes for two inference cards. Every choice for each card will count as one [1] point.
  - **Diagrams with Multiple Choice Answers:** Diagrams, using symbols, which will be included in a key on the diagram, will have multiple-choice answers. Possible circuit parts include: power source; switch [single pole, single throw; single pole, double throw]; wire lamp [bulb]; fuse; bell; buzzer; parallel wiring; series wiring. Each question will be worth one point.
2. No team will be advised by any judge as to how to connect wires for the event.

**Scoring:** Teams with the most points will be ranked highest.

**Tie Breaker:** The team with the shortest amount of time to finish both parts. No time will be counted when moving between stations.