



**COLORADO STATE UNIVERSITY
EXTENSION**

4-H Computer Power



Would you like to learn about the “magic” of electric circuits, magnetism, motors and electronics? Or would you like to learn to build burglar alarms, select stereo equipment or other electronic items? Then the electricity project is for you. You will learn all of this and more through hands-on, useful and fun activities.

Magic of Electricity - Unit1

Jr./Int./Sr.

This unit is designed for members ages 8-18 years old with little to no prior electrical energy experience. Members may stay in this unit for three years. Members will accomplish the following learning experiences:

- Plugging in
- Bright lights
- Control the flow
- Circuit sense
- Electric attractions
- Make it spin

Investigating Electricity Unit 2

Jr./Int./Sr.

This unit is designed for members ages 8-18 years old who understand basic electrical principles such as magnetism, electron flow and circuit design. Members may stay in this unit for three years. Members will accomplish the following learning experiences:

- Investigating Ohm's law
- To flow or not to flow
- Series and parallel circuits
- Switching circuits

Wired for Power Unit 3

Jr./Int./Sr.

This unit is designed for members ages 8-18 years old who understand basic electrical principles such as magnetism, electron flow and circuit design. Members may stay in this unit for three years. Members will accomplish the following learning experiences:

- The code of safe practices
- How much electricity are you using?
- Light up your life?
- What's in the box
- Are your outlets grounded?
- You the electrician

Entering Electronics Unit 4

Seniors Only

This unit is designed for members ages 14 and older who have an understanding of DC circuits, voltage, amperage, current flow, and polarity. (Also, some soldering experience is necessary.) Members may stay in this unit for three years. Members will accomplish the following learning experiences:

- LED or SCR
- Operating with diodes
- Performance with LED
- Burglar proof
- Turn up the volume

Resources and Links

[Electric Tip Sheet](#)

[Electric e-record](#)

[Electric Score Sheets](#)

[State Fair Exhibit Requirements](#)

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