

Fabens STEM Summer Camps 2020  
Fabens High School  
June 15 – 18, 2020

## Agenda

### Monday June 15, 2020:

- What is electricity?
  - Parts of an atom
- What materials conduct electricity?
  - Conductors
  - Insulators
- Types of Circuits
  - Series
  - Parallel
- Electricity Design Challenge
  - Symbols for drawing a circuit
  - Using mini lightbulb, alligator clips, D- battery create a serious circuit
- Paper Circuits Kit
  - Students will create a simple series circuit with an index card, LED, conducting tape

### Tuesday June 16, 2020

- Review
  - Electricity
  - Series and Parallel Circuits
  - Symbols for circuits
- Solar Coackroack
  - Build a cockroach that uses solar panels.
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  - Challenge: build any design (car, flower, monster, dog, etc.) out of paper and include at least one LED light and one battery (circle) and conducting tape to light up your design.

### Wednesday June 17, 2020

- Review Series Circuits
  - Motor, propeller, switch, and 9v battery (square)
- Build a Hover craft
- Paper Circuit Challenge (Moved to Wednesday after Hover craft)

### Thursday June 18, 2020

- Block coding using Micro:Bit
  - 2 video tutorials
  - Challenge: create a sign that:
    - Asks to press a button. Based on the user's decision a message displays on the screen.