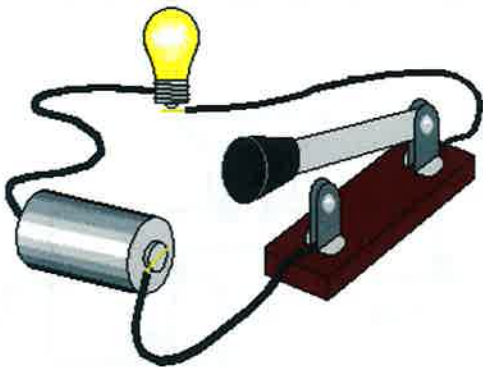




Society of Women Engineers

Learn about **Electrical
Engineering** with your
Secret Candy Safe

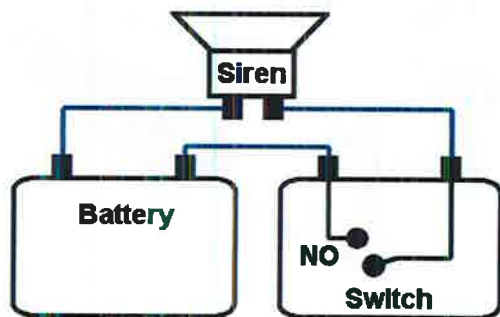


What do electrical engineers do??



The word "circuit" sounds like "circle," and a circuit needs to be circular to work

- Wires have to go from the power source (battery) to the buzzer and back again, so that the electrons can go out and come back
- Many circuits have a switch so that they can be turned on and off.
- When the switch is off, it makes a gap in the circuit and the electrons are not able to flow around
- When the switch is turned on, it closes the gap and the electricity is able to move and make the device work.



Let's Build:

- Pinch the clothespin open and wrap silver wire around each side 5-10 times so when clothespin is closed, wires on each side make contact. Leave about 2 inches of wire hanging off each end.
- Tie a string from the lid of your candy box to the cardboard piece.
- Place the cardboard piece in the mouth of the clothespin so the wires you wrapped do not touch.
- Take Red wire from Buzzer and Red wire from battery connector and wrap silver ends together. Cover the silver ends with electrical tape.
- Take black wire from Buzzer and wrap silver ends to one wire from clothespin. Cover ends with electrical tape.
- Take Black wire from Battery Connector and wrap with other wire from clothespin and electrical tape.
- Secure your battery, buzzer and clothespin to one side of the box using double sided tape. Shorten string if needed.

Materials

Clothespin



Cardboard

String

Box

Buzzer



Battery

Battery connector

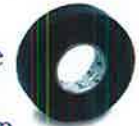


Insulated wire



Silver wire

Electrical tape



Double-sided tap.



**Learn more about
engineering:**

BrainCake.org

EngineerGirl.org

DotDiva.org

EngineeringMessages.org

EngineeringYourLife.org

PBSkids.org/designsquads

PBSkids.org/zoom