

How does the pushbutton work?

- The pushbutton makes a temporary electrical connection by connecting two pieces of metal once a person presses it.
- Lesson demonstrating the theory: Instructor presses a button to light up an LED. Demo link: <https://www.tinkercad.com/things/bXZbfzsjZZO-pushbutton-demo>
- Students will then try to figure out how to make the circuit. Using what they know so far. Students are going to come up with different solutions, which is fine.
- The pushbutton allows physical interaction of the electricity instead of non-physical, which is through code.

How does this relate to robotics?

- Some ways this relates is that it represents a way for the robots to start up.
- Once a button is pressed on the robot, the robot can turn on because it received power from the battery to allow it to function.
- Buttons can also act as sensors, one being a limit switch. Limit switches are used to detect if something has touched it, allowing the robot to “feel” in a way, just like how you can feel objects.

Using the push button in the parallel/series circuit for hands on experience.

- How would using a push button affect a series circuit?
- Use the push button on a series circuit to find out, but make a hypothesis before that.
- How would using a push button affect parallel circuits?
- Use the push button on a series circuit to find out, but make a hypothesis before that.