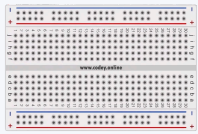


Part 1 of 15



Breadboard

The building board: build without soldering

In your kit: 1×

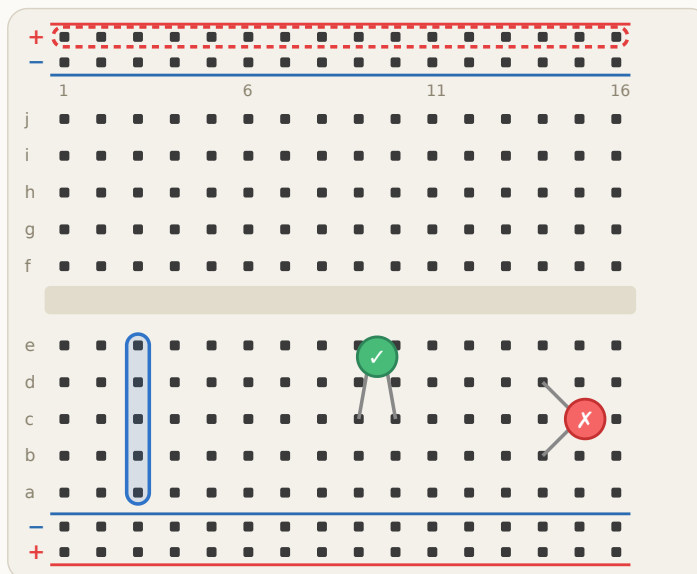
What is it?

A breadboard is a small board full of holes. You put parts and wires into it. Under the holes are metal strips that connect some holes to each other. This lets you make a circuit without soldering. Made a mistake? Just pull it out and try again.

This is how you connect it

This is how it works:

- **Rows of 5:** in the middle part, 5 holes next to each other are connected (a-e and f-j). Everything you put in the same row is connected to each other.
- **The gap in the middle** separates the two sides. So left (a-e) and right (f-j) are *not* connected.
- **Power rails (+ and -)** on the long sides are connected along the whole length. Connect the + to 5V and the - to GND on your Arduino. Now you have power everywhere.



- Power rail: the whole length is connected
- 5 holes in a row are connected
- X Wrong: both legs are in the same row

- Gap: left and right are not connected
- ✓ Good: the legs are in different rows

What can you do with it?

- Try out circuits without soldering
- Give power to several parts at the same time with the + and - rails
- Put an LED and a resistor neatly in series

Tip

Never put the two legs of a part in the same row of 5. Then they are connected to each other and the current just goes around it. It is better to place a part across the gap.

Try it right away! In the exercise "Your first breadboard circuit" you build an LED with a resistor on the breadboard and make it light up and blink. →

Projects with this part

★ Your first breadboard circuit