

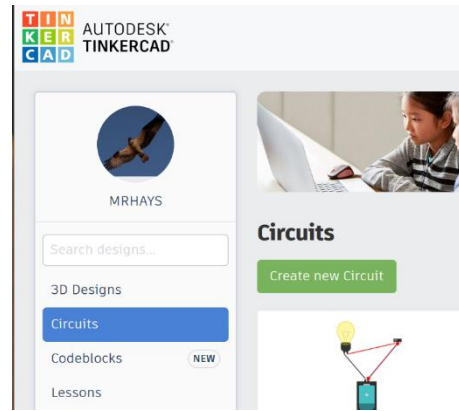
Project Make, Solar day 2: Basic DC circuits

Due: 4th period: Tuesday 2/15/22

5th period: Wednesday 2/16/22

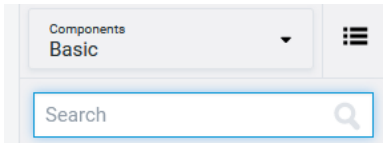
Go to Tinkercad and log in.

Once in Tinkercad, over on the left, click on the Circuits category of creations.

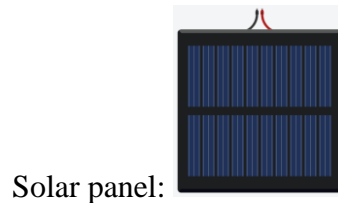
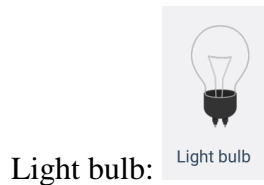


Click "Create new Circuit".

Over on the right where it says:

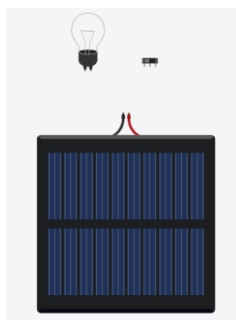


Search for and drag over to the workspace the following items:



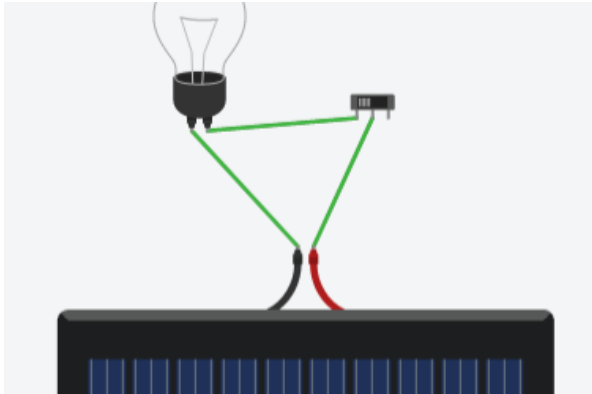
We're going to make a basic circuit that connects a light bulb with a solar panel and a switch. Tinkercad actually lets us test the circuit as well.

Arrange the items like this:



(continued on back)

Connect the components using wires like this:

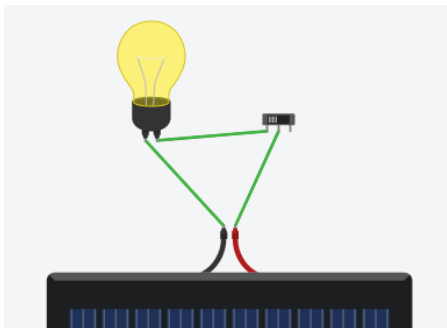


To connect wires between the objects to make a circuit you click on a terminal (one of the little tabs that sticks out from an object) and drag over to the tab of one of the other objects and click on the place you want the wire to go. If you make a mistake, just delete the wire and try again.

Here is what I want:

1. A wire from the positive side of the solar cell to the center tab on the switch.
2. A wire from the far left switch terminal to one tab on the light bulb.
3. A wire from the other terminal of the light bulb to the left wire on the solar cell.

This should create a working circuit. Click the **Start Simulation** button at the top of the window to test it. Your circuit should look something like this:



Does the lightbulb turn on? If not, try to troubleshoot. Review my instructions. Get it to work. Ask me for help if it's not working.

Turn the light on and off using the switch. With the light on, click on the solar cell and adjust how much sunlight is hitting it (you should see the light dim and glow brighter as you change it.)

Share your project by clicking the **Send To** button then click the **Invite People** button at the bottom, create a share link, copy it, and turn that in on the Google Classroom.