



Yes you really can make a battery out of a Spud!

I know that it sounds ridiculous but you really can make a battery out of a few spuds, and here's a quirky project to show you how.

It takes an ordinary household potato and turns it into a voltage source, powerful enough to drive an LED.

All you need is:

- 3 large potatoes
- a shiny coin
- a galvanized steel nail
- a multimeter - for testing

To see the video that accompanies this article please go to:

<http://www.monkeysee.com/play/6354-how-to-make-a-potato-battery> it will talk you through the steps listed below.

STEP 1

To start off, you need to get a household potato and cut it in half. Because a household potato is relatively large you do not need the whole thing and you can use the two halves to make two voltage sources. Firstly cut your potato in half, you will start to notice that they are relatively juicy. Potatoes are not known for the juices, but that is exactly what is going to act as the electrolyte you need in order to produce that electron flow between our anode and our cathode. With a potato, the electrolyte consists of phosphoric acid.

In order to produce the anode for your potato battery, you are going to need a nice shiny penny. If you cannot find a shiny penny take some steel wool and gently rub back and forth on the penny, it is going to remove a lot of the oxidation that is going to inhibit producing a nice cathode for your battery. Next, take the knife that you used to cut the potato apart and make an incision in one side of the potato, take your penny and gently insert it into the potato so far that you've got just a little bit of the penny sticking out. The further you get the penny into the potato, the more contact that the copper has with the phosphoric acid inside.

STEP 2

Next, you are going to produce the cathode by taking the galvanized steel nail and driving it into the other side of the potato. At this point, it is very important that the cathode (steel nail) does not touch the anode (penny). If the two touch together you are going to produce an electric circuit and the potato battery will not work.

STEP 3

Next, you take your multimeter and move your range selector to 2 volts range; the multimeter has a red lead and a black lead. This indicates which goes to the anode and the cathode. If you attach the black one to the cathode (steel nail) and the red one to the anode (penny), you will see that you are producing a good bit of voltage. In this case you should be producing about 0.58 volts. If you drive the nail a little bit further in and make sure the penny is in there you should be able to get a little bit more voltage out of it.

[For more experiments, including using your battery to power an LED see monkeysee.com](http://www.monkeysee.com)

[We hope you have enjoyed this experiment!](#)

Information sourced from:

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