CNARDUINO

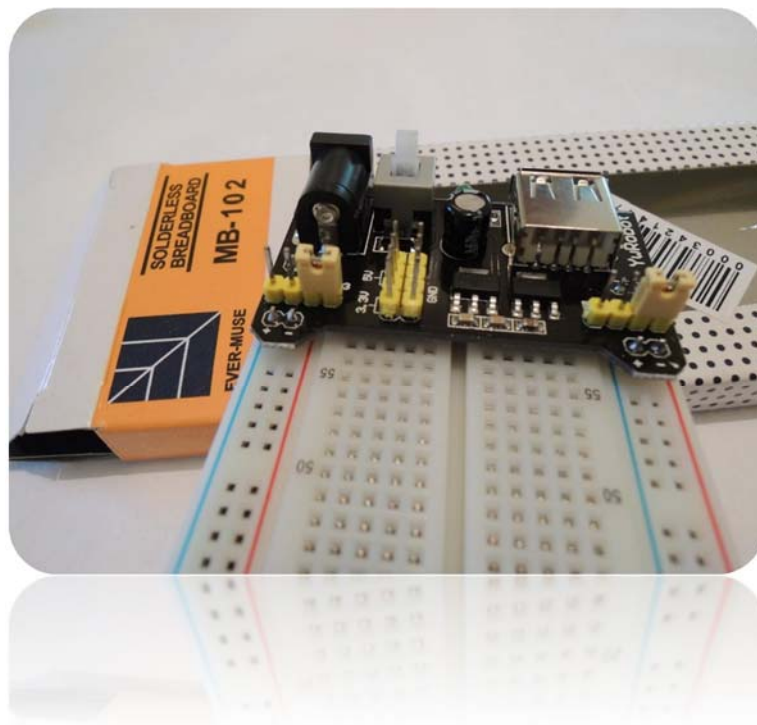## Breadboard Power Supply 5V/3.3V
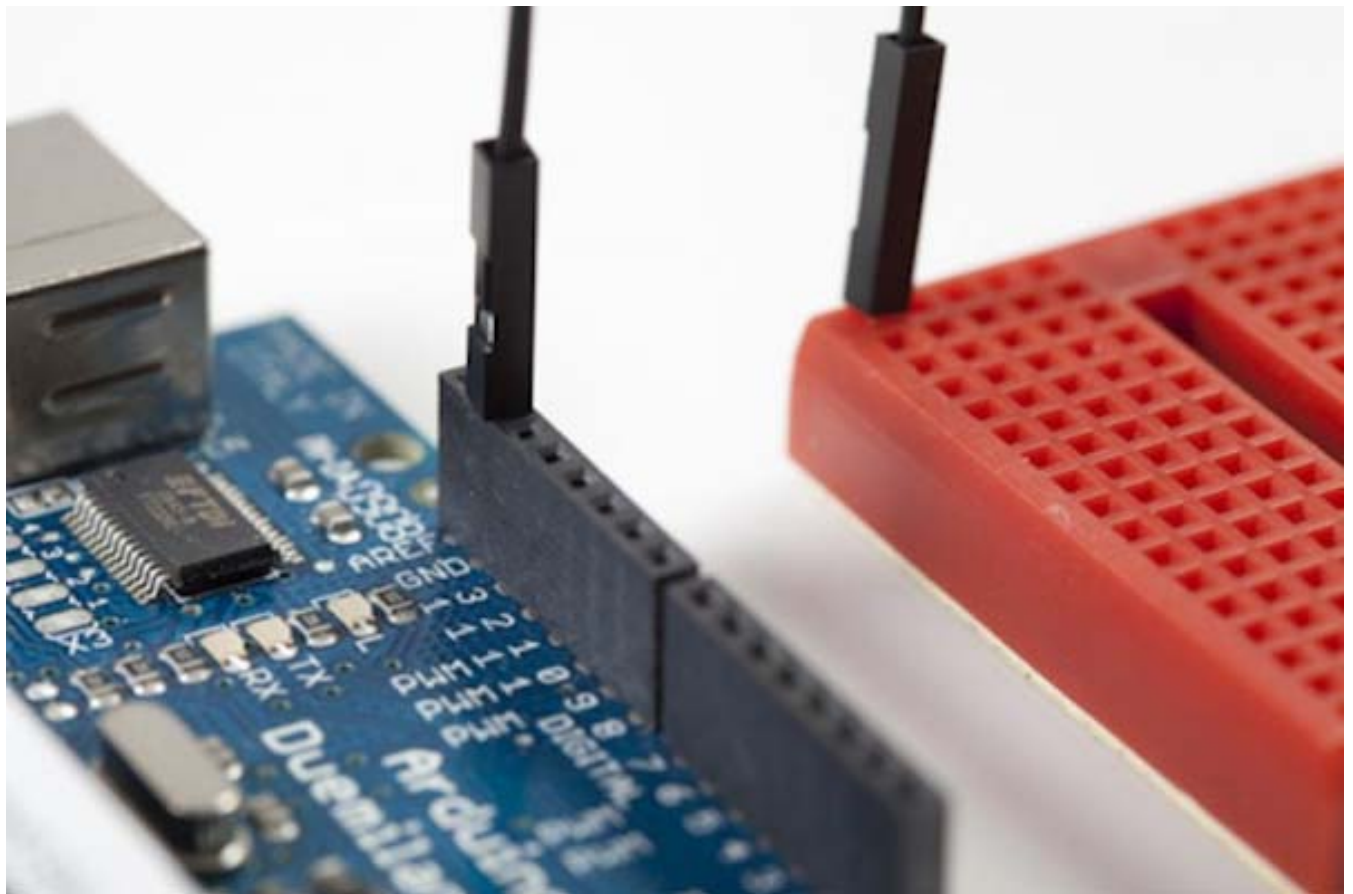
BREADBOARD POWER SUPPLY 5V/3.3V

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PROVIDING POWER TO A BREADBOARD

When it comes to providing power to you breadboard, there are numerous options.

2.01 BORROWING FROM OTHER POWER SOURCES

If you are working with a development board such as an Arduino, then you can simply pull power from the Arduino's female headers. The Arduino has multiple power and ground pins that you can connect to the power rails or other rows on a breadboard.

Connecting the Ground (GND) pin from an Arduino to a row on a mini breadboard. Now any leg or wire connected to that row will also be connected to Ground.

The Arduino usually gets its power from the USB port on a computer or an external power supply such as a battery pack or a wall wart.

2.02 BINDING POSTS

As mentioned in the previous section, some breadboards have binding posts that allow you to connect external power sources.

The first step to using the binding posts is to connect them to the breadboard using some jumper wires. Although it would seem that the posts are connected to the breadboard, they are not. If they were, you would be limited to where you could and couldn't provide power. As we've seen, breadboards are meant to be totally customizable, so it would make sense that the binding posts are no different.

With that, we have to connect wires to the posts in order to connect them to the breadboard. To do that, unscrew the post until the hole going through it is exposed. Slide the stripped end of your jumper wire through the hole, and screw the post back down until the wire is firmly connected.
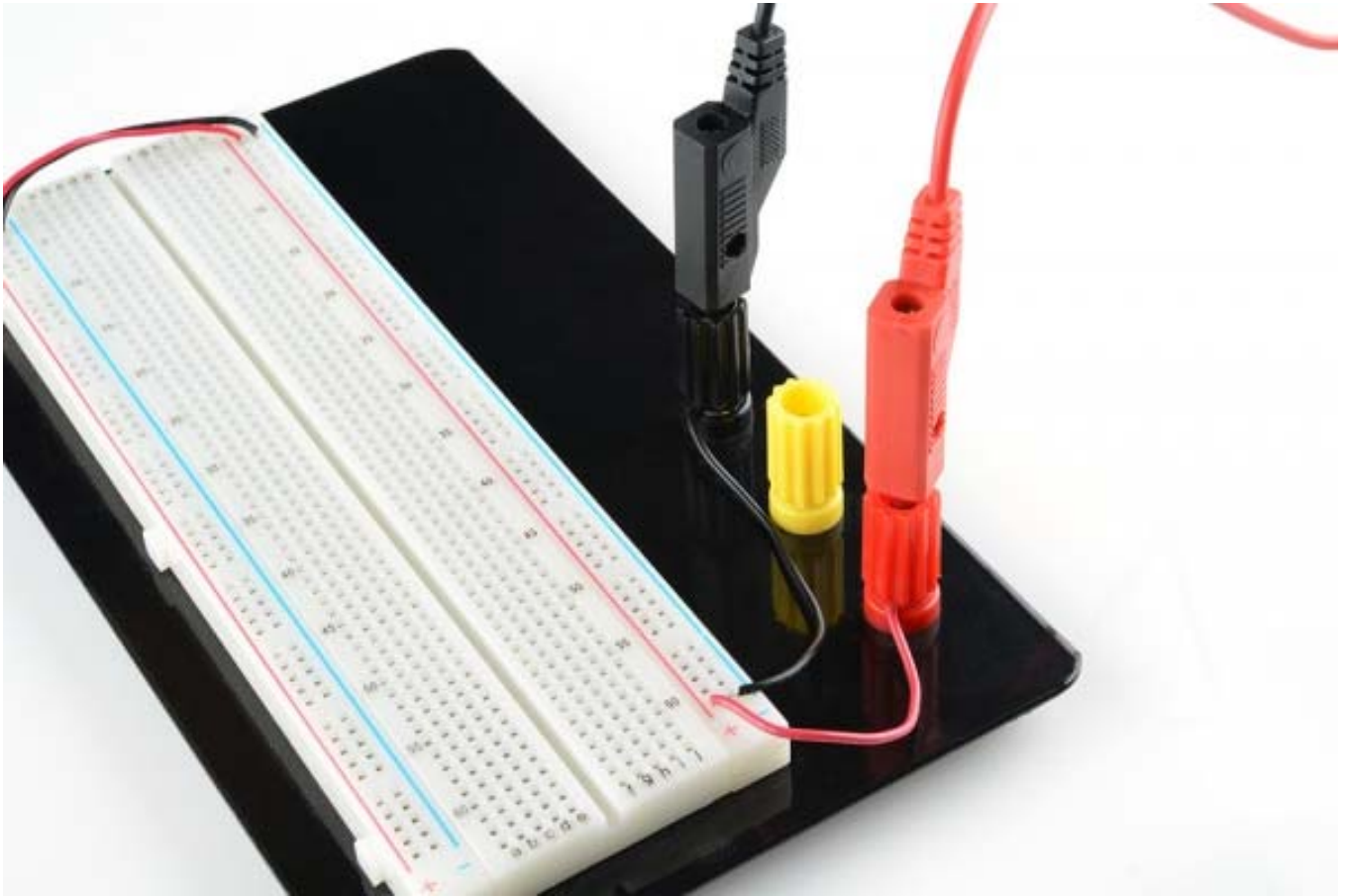

Typically, you only need to connect a power and ground wire from the posts to the breadboard. If you need an alternate power source, you can use the third post.

Now your posts are connected to the the breadboard, but there is still no power. You can use many different methods to connect power to the posts, and, thus, to the breadboard.

2.03 BENCHTOP POWER SUPPLIES

Many electronics labs have benchtop power supplies that allow you to provide a wide range of voltage and current to your circuit. Using a banana connector you can provide power from the supply to the binding post.

A breadboard being powered through the binding posts from banana cables.

Alternatively, you could use alligator clips, IC hooks, or any other cables with a banana connection to hook your breadboard up to a number of different supplies.
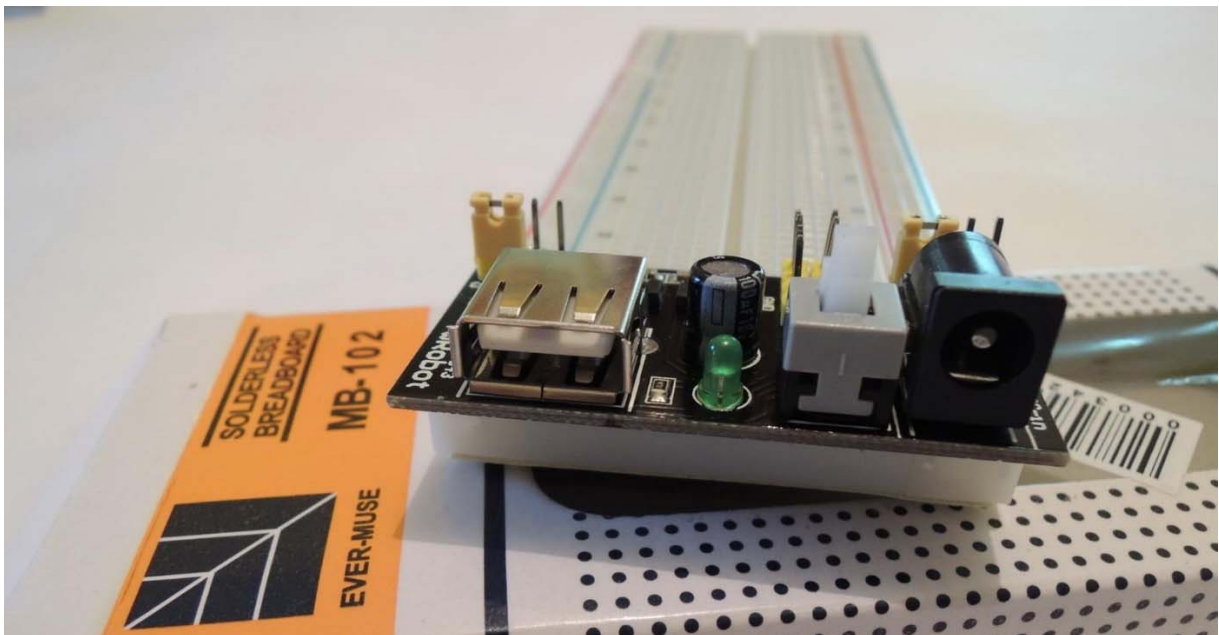
Another method of using the binding posts is to solder a barrel jack to some wires, and then connect them to the binding posts. This is a more advanced technique, and it requires some intermediate soldering skills.

The barrel jack is soldered to two wires that share the same holes on the binding posts as the wires going to the breadboard. If your breadboard doesn't have binding posts, you could just plug the wires from the barrel jack directly into the power rails.

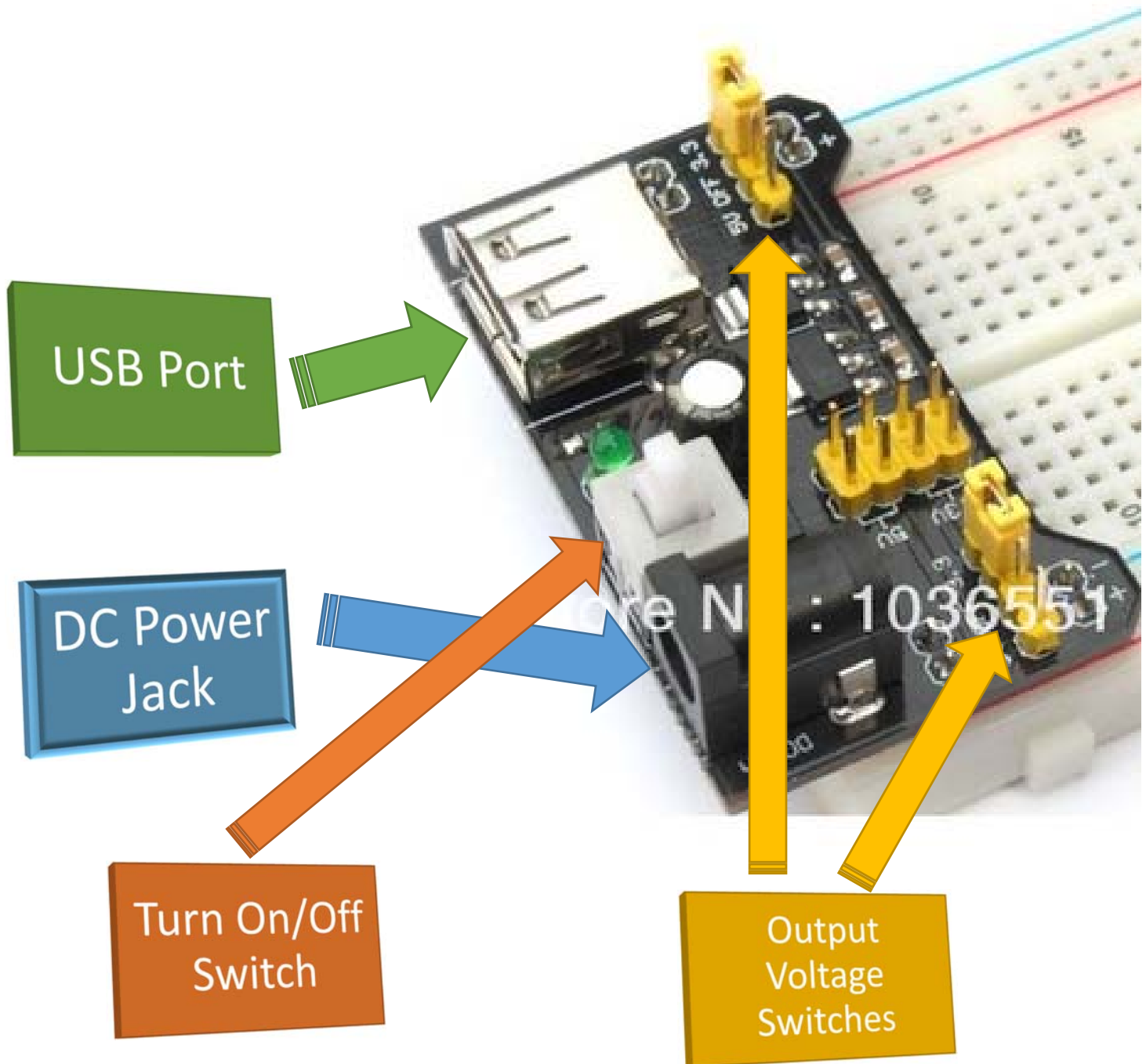## 2.04 BREADBOARD POWER SUPPLIES

Yet another method for powering your breadboard is to use one of the many breadboard power supplies available. Some allow you to plug a wall wart directly into the breadboard. Others allow you to pull power directly from your computer via the USB connections. And, almost all of them have the capability to adjust the voltage, giving you a full range of the common voltages needed when building circuits.

A USB Breadboard Power Supply *that pulls power from your computer's USB and has the option to choose between 3.3V and 5V.*

PROCEDURE FOR BREADBOARD POWER SUPPLIES

For using breadboard power supply you only have to attach it to USB power supply from your computer or laptop port or a power adaptor. If you don't want to supply power to it from the USB port of this module you can chose the alternative way of supplying power to it from the DC power jack. You will use only one source at the input side of the module i.e. you may power it from the DC power jack only (9V-12V) or you may plug in the USB cable to power it through the USB port. On the output you may switch between the 5V or 3.3V, you can select the output voltage from the two given jumpers, you may set one to 3.3V and other to 5V or anyway you like. The maximum output current is about 700ma.

USB Port

DC Power Jack

Turn On/Off Switch

Output Voltage Switches

SOME PHOTOS OF THE MODULE

2.05   ONLINE STORE LINK TO BUY

- http://www.aliexpress.com/store/product/Breadboard-power-supply-Module-compatible-with-3-3V-5V-for-Arduino-MB102-Bread-Board/1036551_1551441174.html