

Make a Vshield for your Vjacket

by **vjacket** on October 27, 2010

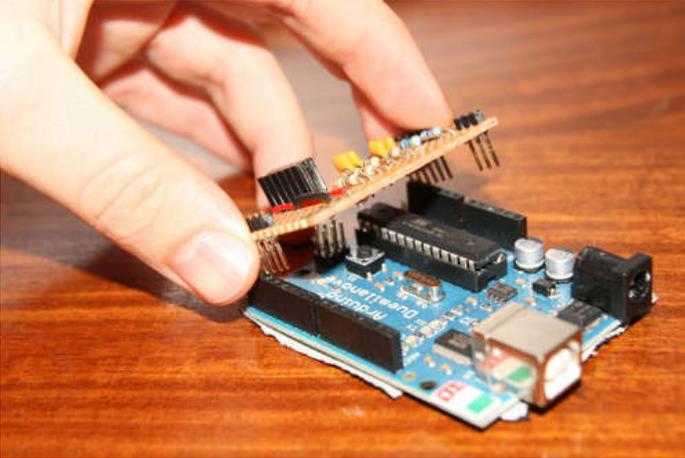
Intro: Make a Vshield for your Vjacket

In this Instructable we show you how to make the V-shield for your VJacket! The Vshield fits on top of your Arduino controller that reads out the data of the attached sensors (in this example Piezo and Bend sensors).

The VJacket is a wearable controller for live video performance. Built into the jacket are bend, touch and hit sensors which you can use to send OpenSoundControl or MIDI messages wirelessly to the VJ program of your choice, letting you control video effects and transitions, trigger clips and scratch frames all from the comfort of your own jacket.

More information you can find on the website: www.vjacket.com

So let's get started!



Step 1: The board

For the Arduino Vshield we use a standard 12x20 hole size board. On the backside of the board you have the standard connection lines that go parallel to the 20 holes.

On the sides we have different sized **straight Break Away Headers** : 1x3pins, 2x6pins.

In the middle you find an alignment of **female Break Away Headers** . Here we will connect the different sensors to it.

Here a link to the straight Break Away Headers:

http://www.sparkfun.com/commerce/product_info.php?products_id=116

Here a link to the female Break Away Headers:

http://www.sparkfun.com/commerce/product_info.php?products_id=115

Just align them as shown on the photo and solder them.

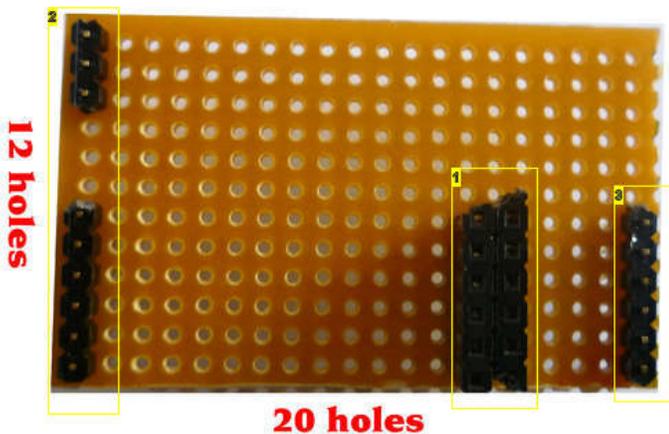


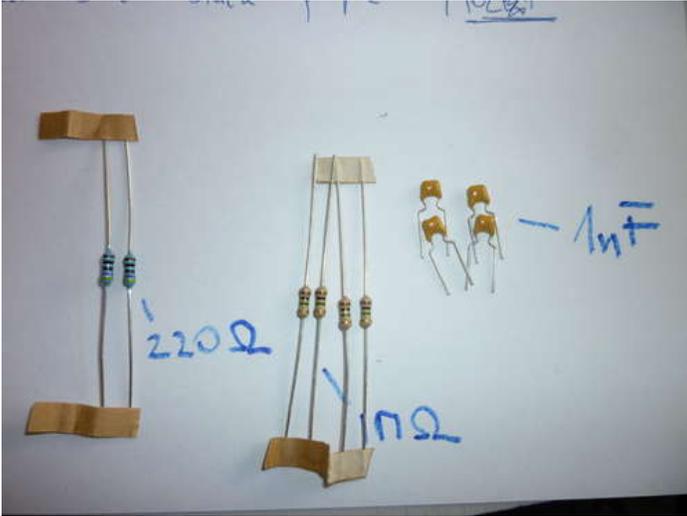
Image Notes

1. Female Break Away Headers
2. Straight Break Away Headers
3. Straight Break Away Headers

Step 2: Resistors and Capacitors

Here a photo for the resistors and capacitors we need:

- 2 x 220 OHM
- 4 x 1 MOHM
- 4 x 1NF



Step 3: Placement of the resistors and capacitors

Here you see the placement of the resistors and capacitors. From left to right you see the first two 220 Ohm resistors for the bend sensors. Then the 4x 1nF and 4x 1M Ohm used for the piezo sensors.

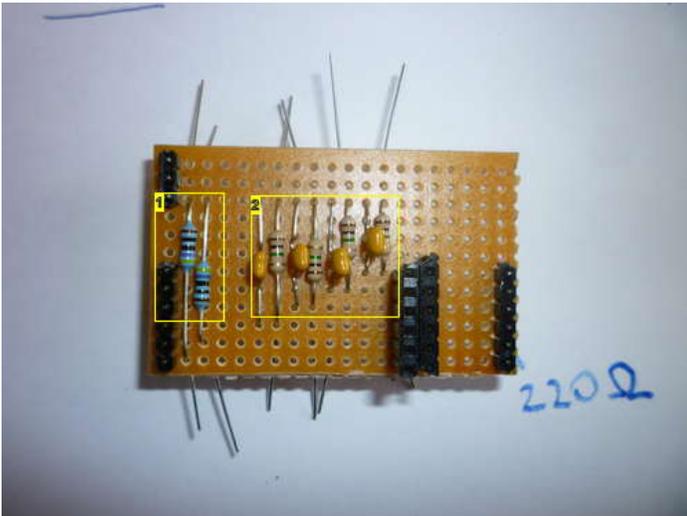


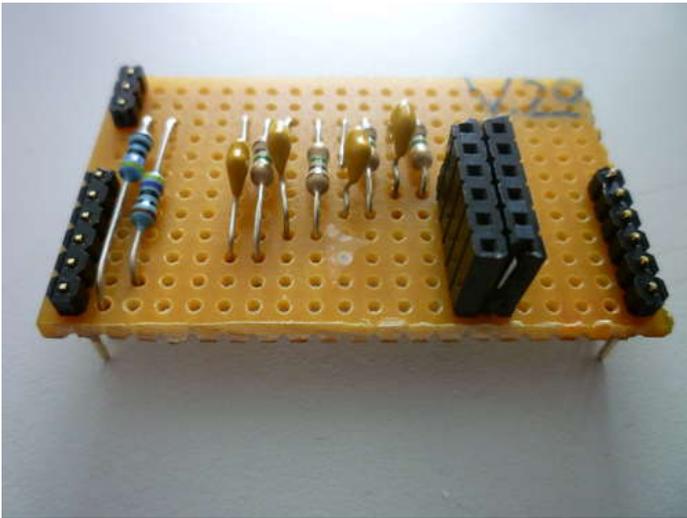
Image Notes

1. 220 Ohm resistors used for the bend sensors
2. 1nF and 1M Ohm resistors used for the piezo sensors

Step 4: The soldered topside

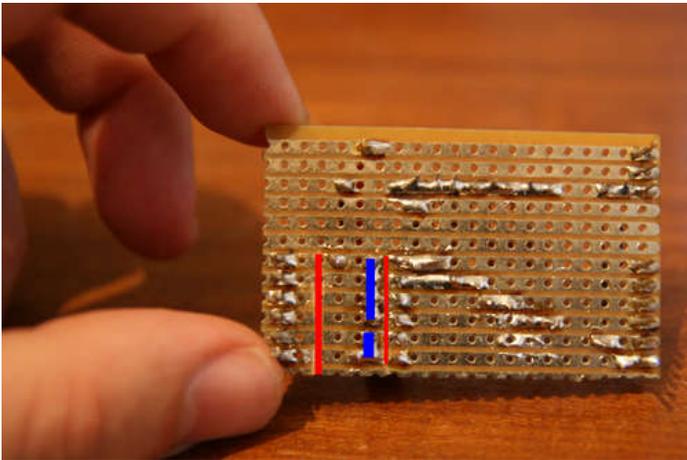
After soldering the topside your Vshield should look like this!

Next we have to do the bottom-side.



Step 5: The bottom side

On the bottom side we have to cut and combine some connections. See the photo for more info. (red=cut, blue=combine)



Step 6: Last step: solder 2 cables for

In the last step we solder 2 cables for the ground and 3V connection.

That's all folks!

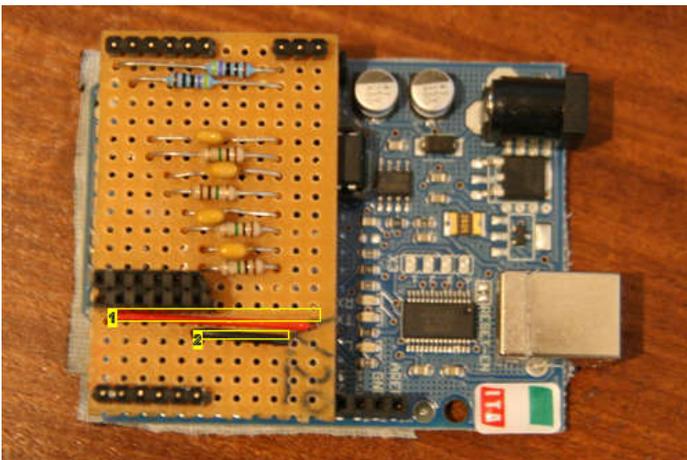


Image Notes

1. 3V connection
2. Ground connection