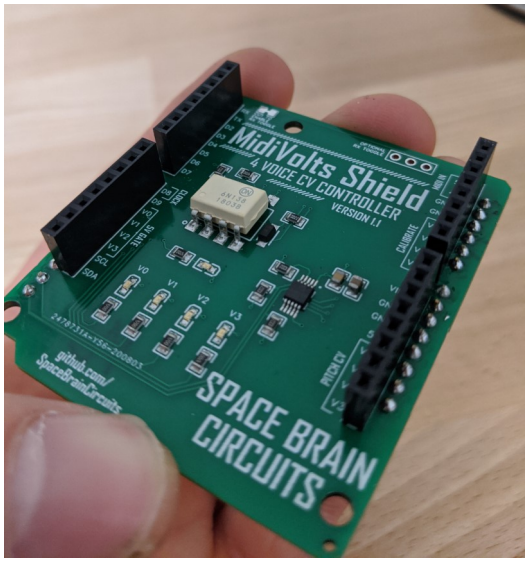
MidiVolts Quick Start Guide

Recommended Experience: Beginner soldering level skills and basic understanding of electronics and troubleshooting

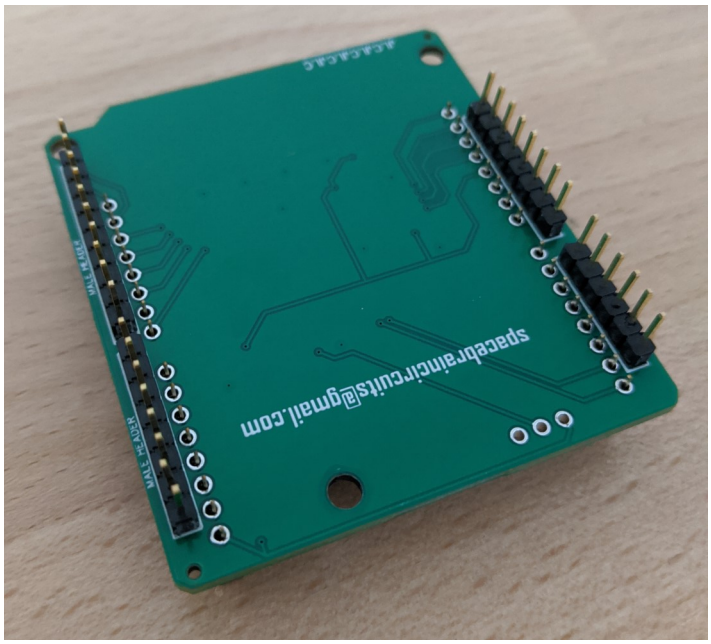
Tools Required: Soldering Iron, solder

Optional Tools: Flush cutters, putty for holding headers



Second Step: Female Headers

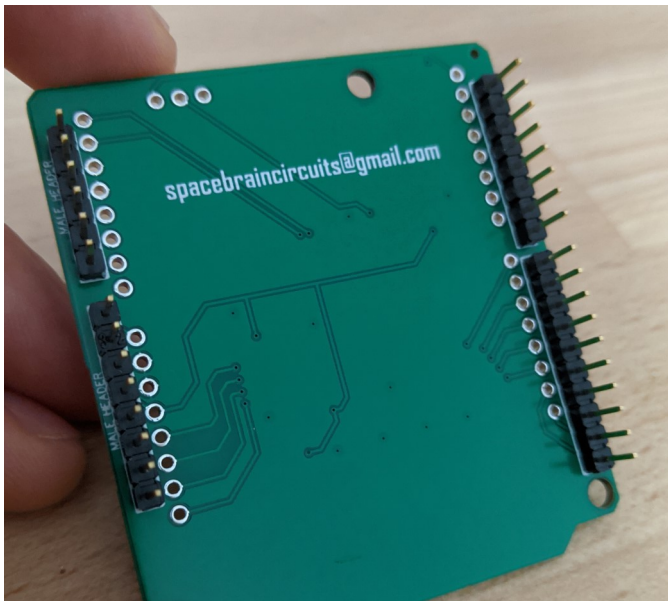
You should have received 4 female 8 pin headers. These will go on the top of the MidiVolts shield. Place onto shield and flip over as shown on the image below. **I Highly recommend verifying each header is properly seated after soldering first pin!**



First Step: Male Headers

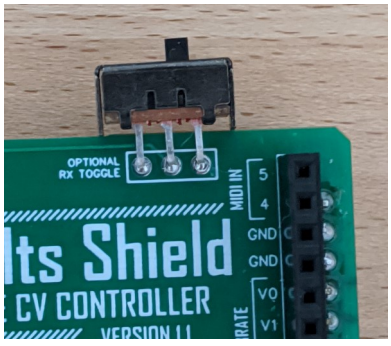
You should have received 4 male headers, one 10 pin, two 8 pin, and one 6 pin. These will go on the bottom of the MidiVolts shield (labeled Male Header). See image below. **I highly recommend verifying each header is seated properly after soldering first pin! Headers must be not be crooked!**

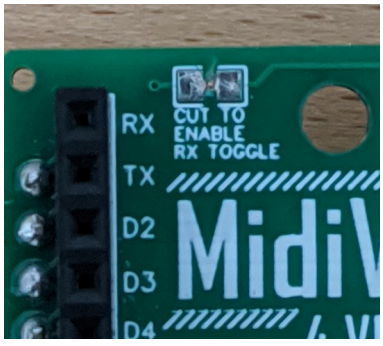
(If you use your Arduino to hold these headers, please be very careful not to overheat the Arduino pins!)



Third Step: Optional RX Switch

If you plan on uploading sketches often on this board, then I would recommend adding a SPDT toggle to the RX Switch. This will allow uploading without having to pull shield off Arduino. Don't forget to cut the RX trace to enable this mode.



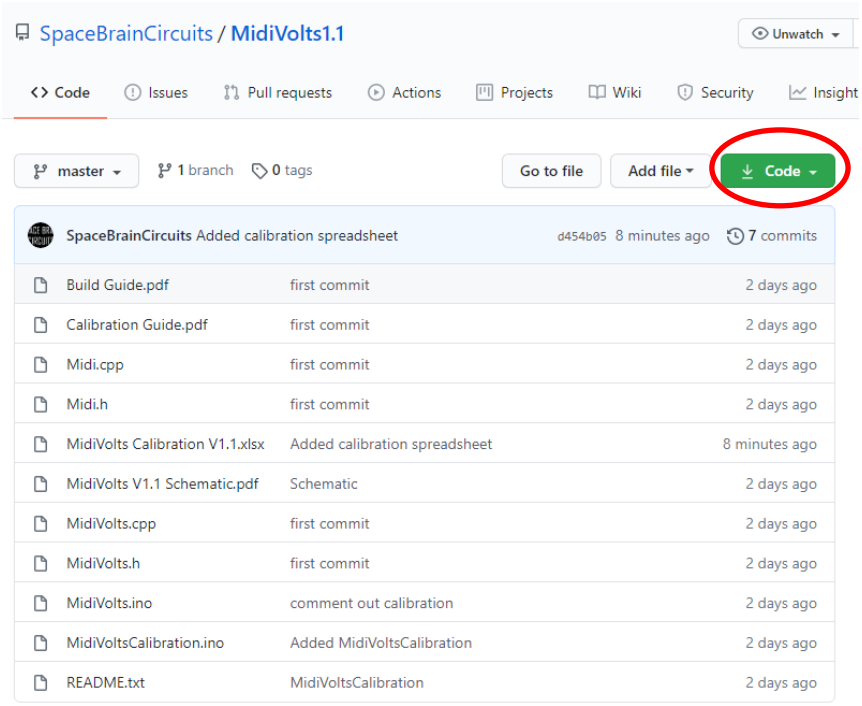


Please email spacebraincircuits@gmail.com for any questions or issues! I am more than happy to help!

Fourth Step: Get Code

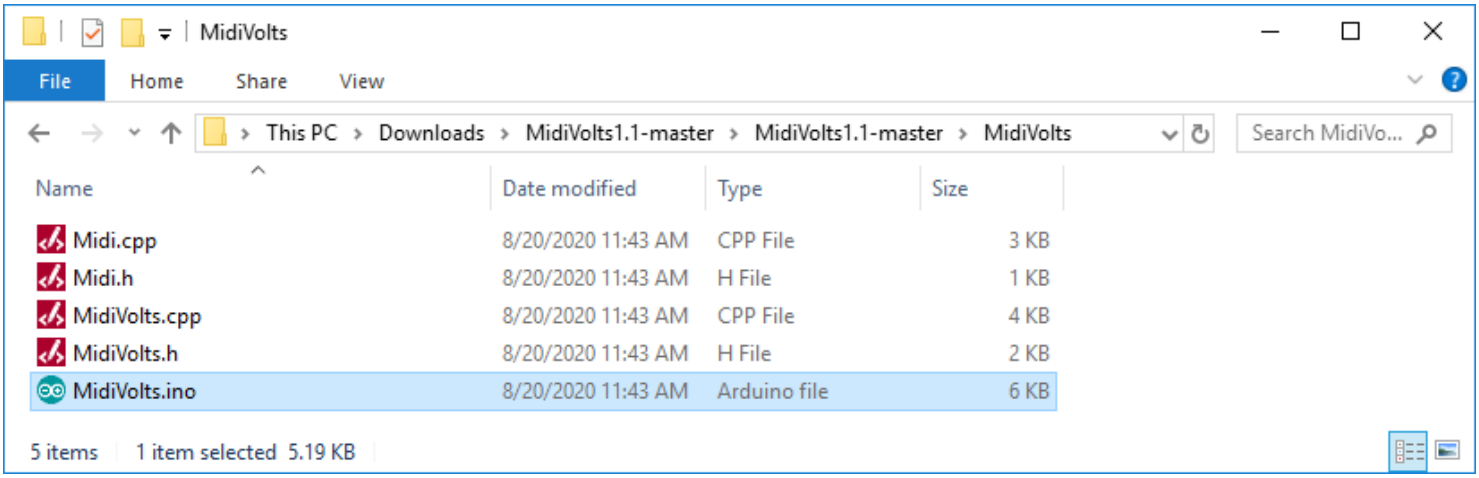
https://github.com/SpaceBrainCircuits/MidiVolts1.1

Click the **Code** button. Choose *Download ZIP.* Next, you will need to **extract** the Zip file. You should be able to right click and choose *Extract All* in windows and *double click* in Mac environment.



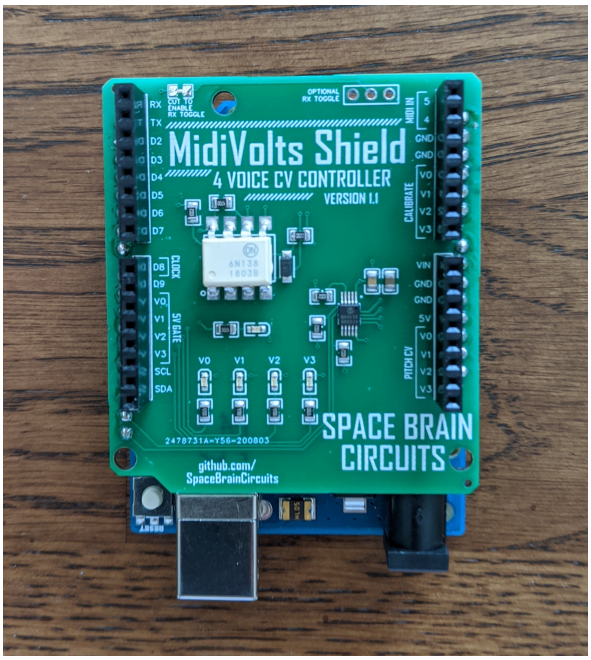
Fifth Step: Create Project Folder

Create a folder named *MidiVolts* in your desired location. This **must** be named exactly as shown. **Move** the following files to this folder as shown below.



Sixth Step: Upload Sketch

Verify the MidiVolts shield is off of the Arduino Uno! Upload the MidiVolts sketch. You may choose to change modes by defining the mode value as described in code. After upload is successful, place the shield onto the Arduino Uno as shown. All pins should line up perfectly with the Arduino Uno. **I highly recommend using an external 9-12V power supply when using the MidiVolts shield. This will ensure the most accurate CV scaling!**



(Optional) For advanced calibration procedures, please see **README** or **Calibration Guide** as provided in the github download.

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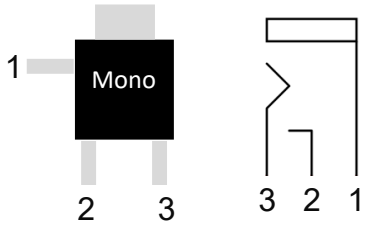
MidiVolts Wiring Diagram

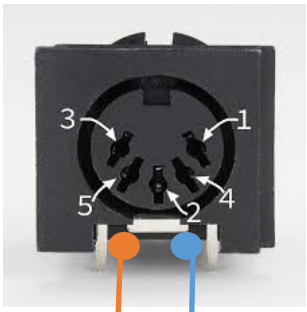
3.5mm Mono TS Jack



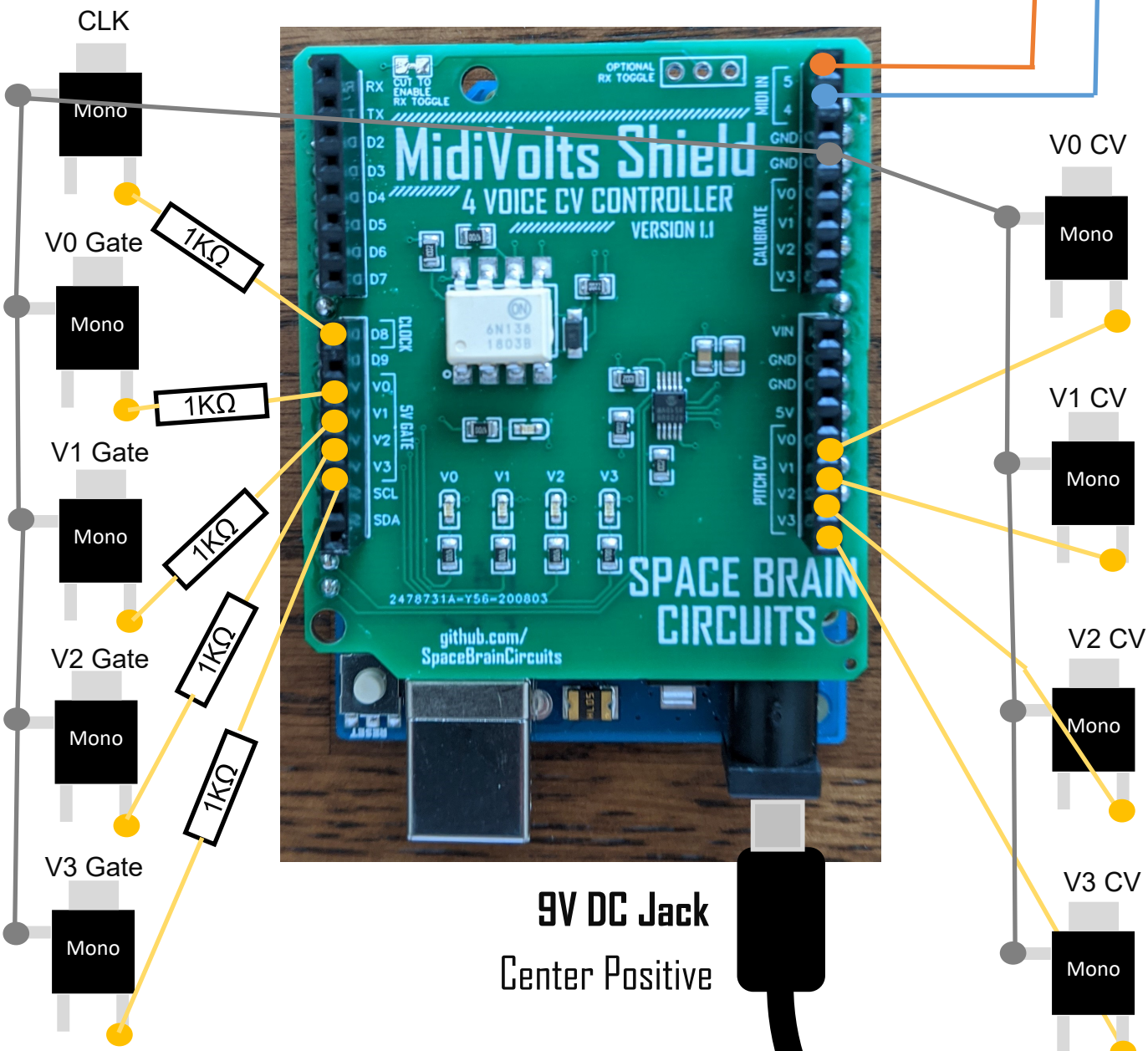
MIDI TRS

OR

MIDI DIN



This schematic only works for Midi Type A adapters. If you have a type B adapter, you will need to switch pins 4 and 5.



9V DC Jack

Center Positive

Note: The IKΩ resistors (as shown above) are recommended but not mandatory. These are current limiting resistors to protect Arduino pins when plugging/ unplugging cables into jacks.