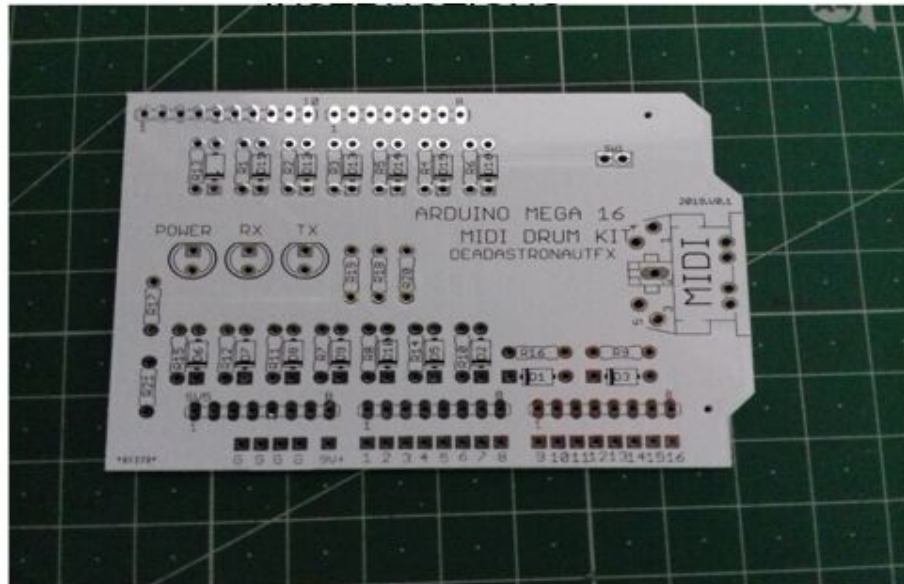


DEADASTRONAUTFX

<https://deadastronaut.wixsite.com/effects>

ARDUINO MEGA 2560

MEGA 16 MIDI DRUM SHIELD



To complete this project you will need:

- 5 x 8pin headers.
- 16 1M resistors.
- 16 x 5.1v zener diodes (BZX-C5V1).
- 16 x piezo discs (for drum pads).
- 3 x Leds.
- 1 x pcb mount MIDI Socket
- 1 x 'Momentary' footswitch (for hat control).
- R21 = 220r resistor
- R17 = 4.7k resistor
- R18 = 220r resistor
- R19 = 220r resistor
- R20 = 10k resistor
- 17 x 'switched' jack sockets.
- 17 x jack plugs.
- Hook up wire.

NOTE: you can use standard 1/4" jack sockets and plugs, or you can use 3.5mm sockets and plugs to keep things small. as long as the sockets are of the 'switched' type.

you will need a MIDI out cable, which can be a cheap USB MIDI cable available on ebay etc....they work fine. fire up your DAW and DRUM plugin or module and off you go..have fun. Deadastronautfx

Install all components.

install header pins by placing header pins into your arduino 2560 sockets and placing the shield on top, then solder. note: header pins 1 (top left) should be positioned to cover the right 8 pins) leaving the 2 left pads exposed.

connect the tip and ground lugs of a socket to the 'SW1' pads left is positive (tip), right is ground. (sleeve) this is for connecting your hi hat footswitch control. which will be on input pad '4' for open/closed hat operation.

The 16 input 'switched' jack sockets must be wired to send the tip to ground when 'unplugged', otherwise mis triggering will occur. connect all 16 socket grounds together and connect to one of the ground 'G' pcb pads.

connect all 16 tips of the jack sockets to pads 1-16.

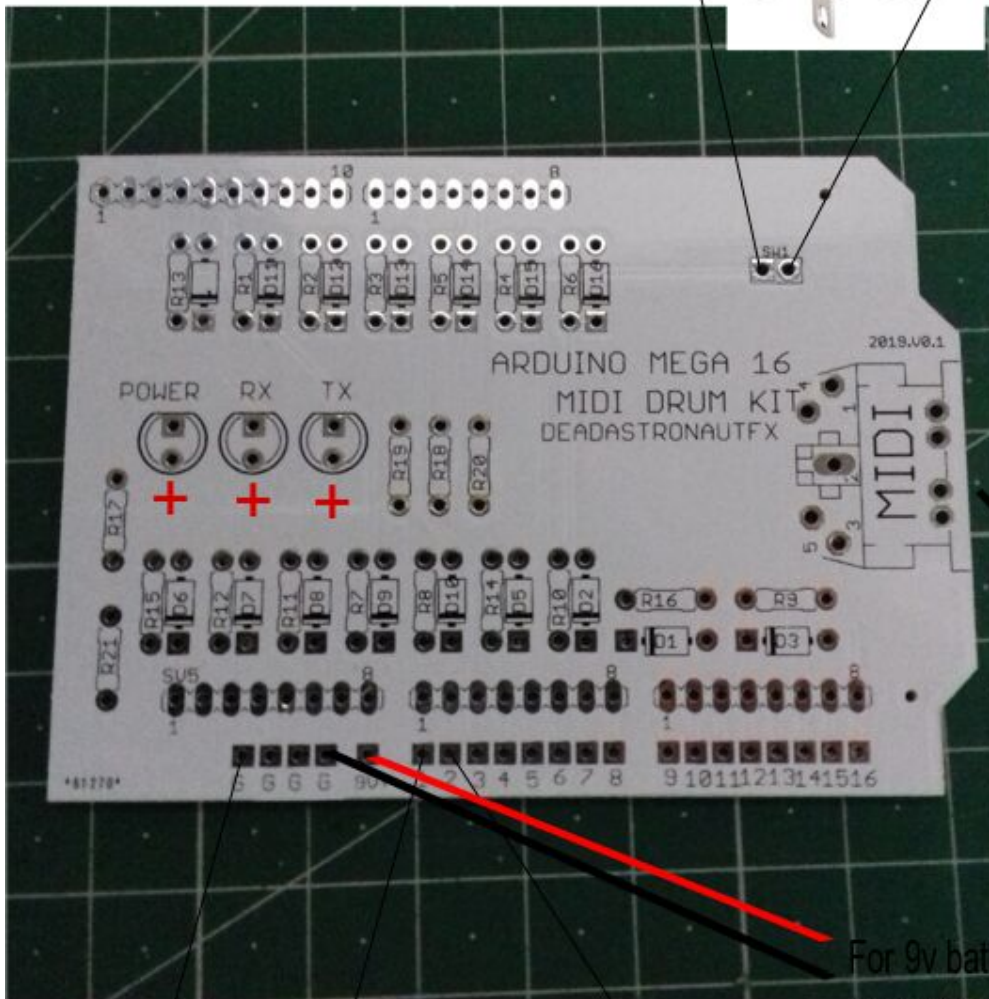
this means you can have 1 - 16 pads, or just a few, whichever suits your needs. you do not need to connect all 16 if you so wish.

the arduino code can be uploaded to your mega 2560 before or after installing the midi shield.

midi note numbers can be changed in the code to match your specific midi notes as required.

Hat control
plug in 'momentary'
footswitch>>>>>>>>

socket '17'

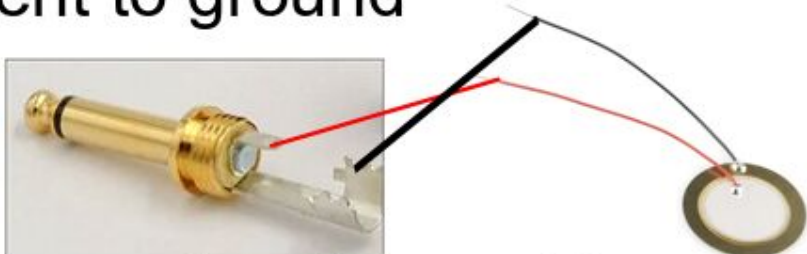


For 9v battery/
power use once programmed



<DO THIS TO ALL 16
SOCKETS

When nothing is plugged
In socket tip is sent to ground



piezo/plug wiring