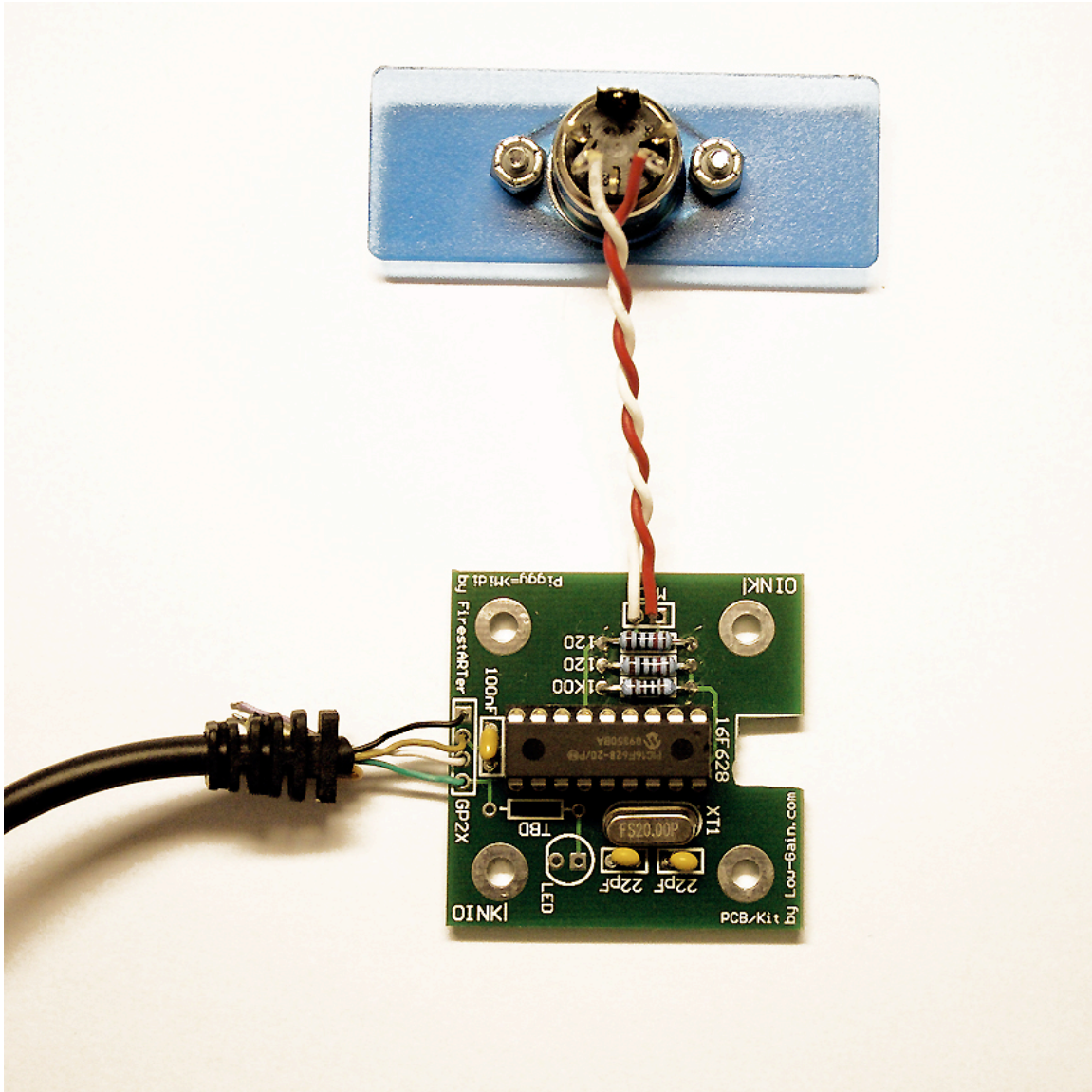


Piggy=>Midi DIY Documentation

By Low-Gain (<http://www.low-gain.com>)



Tools Needed:

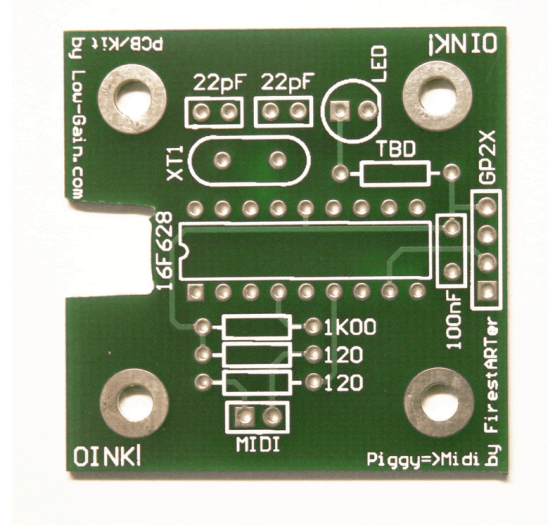
- Soldering Iron
- Solder
- 22-24G Stranded Wire
- Wire Strippers
- Side Cutters (Dikes)

Build of Materials (BOM):

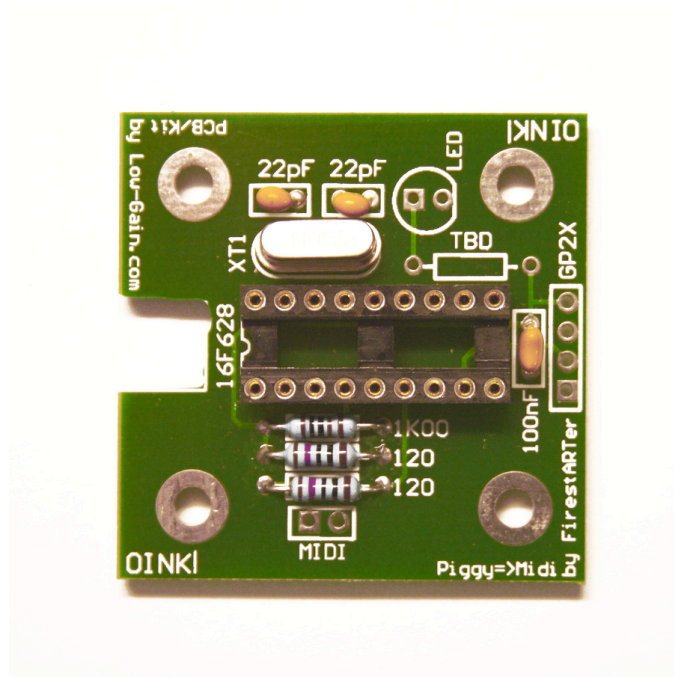
Quantity	Part	Mouser Part #
2	120 Ohm Resistor (<i>150 or 220 ohm works too</i>)	271-120-RC
1	1K00 Ohm (1000 ohm) Resistor	271-1K-RC
2	22pF Ceramic Capacitor	80-C315C220J5G
1	100nF (.1uF) Ceramic Capacitor	581-SR205E104MAR
1	20Mhz Crystal	559-FOXS200-20-LF
1	18 pin DIP Socket (<i>gold plated, machined pin recommended</i>)	571-4-1571551-5
1	Hammond Project Chassis	546-1593KTBU
1	5 Pin Midi DIN Connector	502-57GB5FX
1	16F628-20/P	** <i>(Available through Kitsch-Bent)</i>
1	GP2X EXP Cable	** <i>(Available through Kitsch-Bent)</i>
1	Piggy=>MIDI PCB	** <i>(Available through Kitsch-Bent)</i>

**For the Parts said to be purchased through Kitsch-Bent. Here is the link:

<http://kitsch.bigcartel.com/category/gp2x>

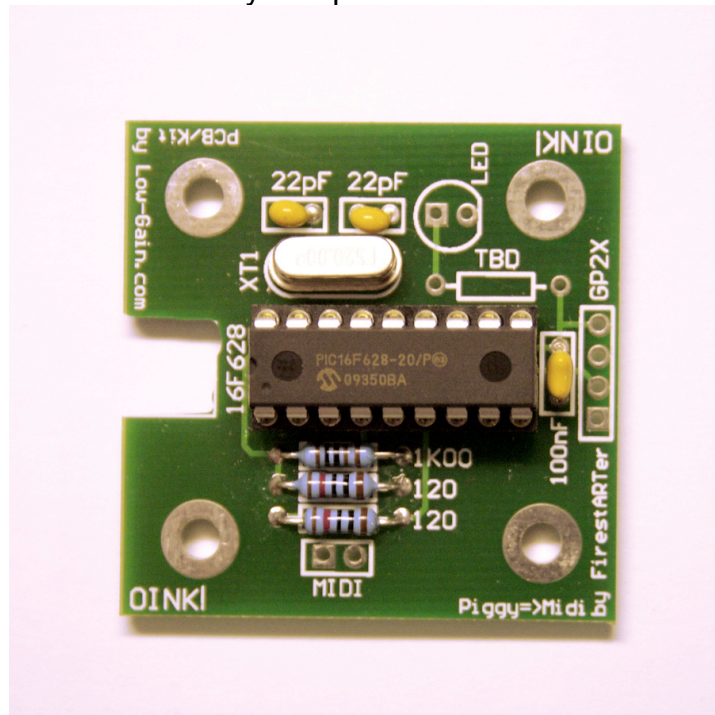


Piggy=>Midi PCB

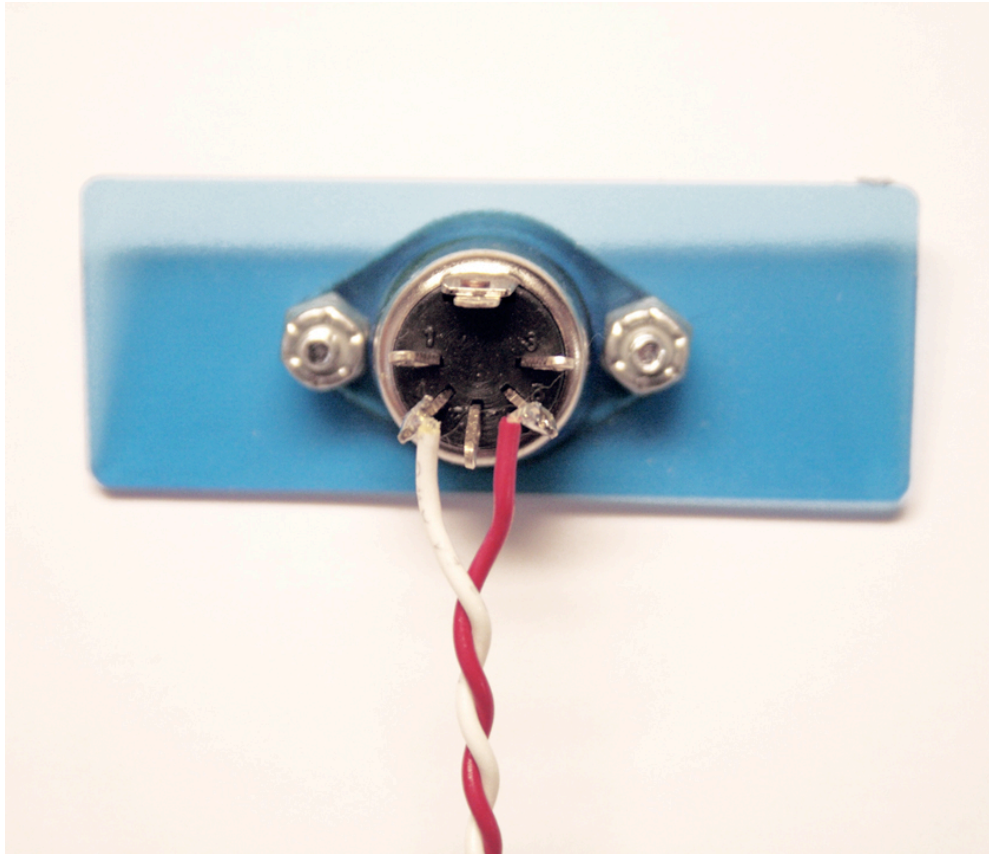


Step 1: Install and solder all parts into their labeled location.
When finished, it should look similar to the picture above.

The LED & Resistor TBD can be omitted unless you wish to have a power LED, however it significantly reduces battery life.
Use Ohms law w/ your spec'd LED to determine TBD.



Carefully Install the PIC, as shown above.



Using about 3 " of twisted 24G Stranded Wire,
Solder each wire as shown above.

Midi Jack Wiring:

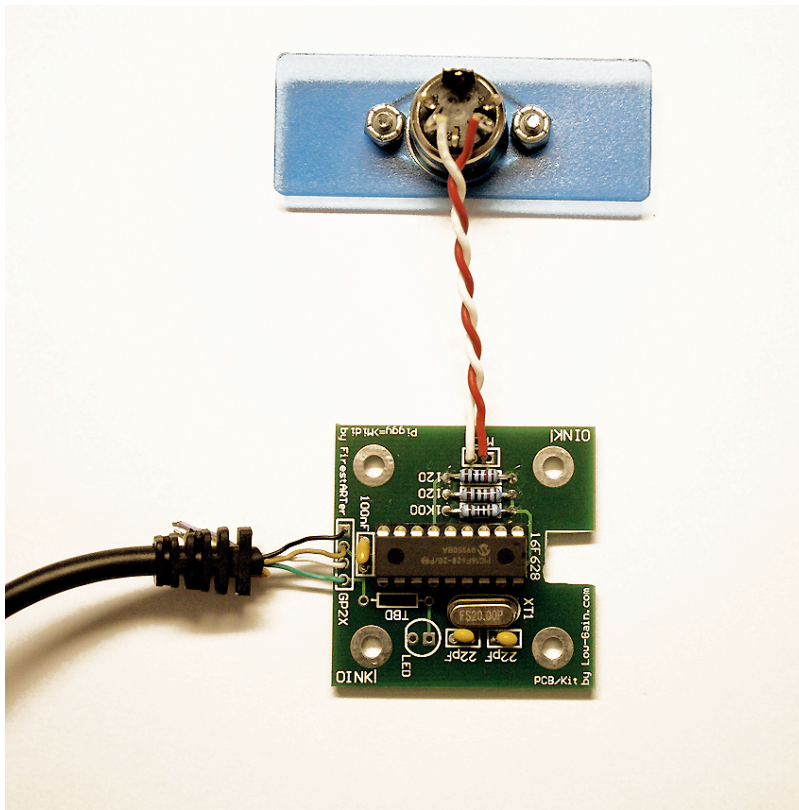
White = Pin 4 (labeled on jack)

Red = Pin 5 (labeled on jack)

PCB Wiring: (See *picture below*)

White = Pin 1 (Square hole)

Red = Pin 2 (Round hole)



As you can see in the picture above, If you followed the GP2X EXP Cable wiring tutorial, (<http://lowgain-audio.com/GP2Xexp.htm>) the Pin-out is as shown.

- 1: Ground (Black) (Pin 1 on my pcb is indicated w/ a square pad, the rest are round)
- 2: RXD0 (Brown)
- 3: TXD0 (White)
- 4: Power (Green)

Definitions:

- Green - +3.3V (Power +)
- Brown - RXD0/GPD0
- White - TXD0/GPD1
- Black – GND

And that it! It's a pretty straightforward DIY Project. Simple to read, and Simple to build.. If you have any questions, feel free to contact me: mail to: logan@lowgain-audio.com Subject: Piggy=>MIDI Question(s)

As always, we'll see you next time! ☺ Keep DIYing!!!!