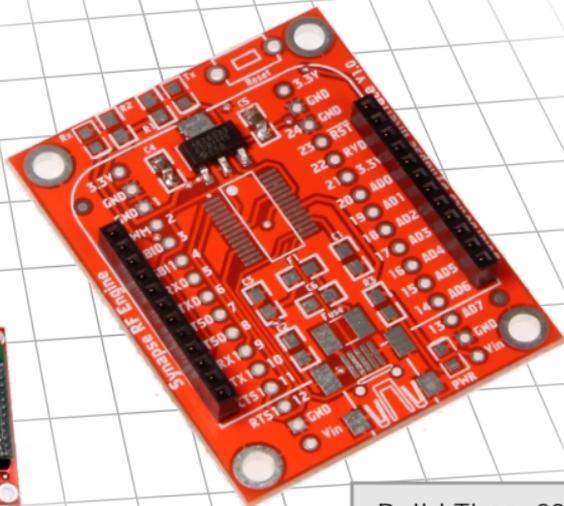


# Synapse-SMD Adapter Kit

You love the Synapse, but need a simple way to *easily* integrate it into your project? Here's a stripped down kit based on our FTDI interface board. Solder on 3 components (plus plugs), and you're good to go!



Synapse module  
not included



Build Time: 20mins  
Skill Level: Intermediate(3/5)

- Based on FTDI Adapter
- 1A 3.3V Voltage regulator

- SMD Soldering Req'd
- 0.1" spaced breakout lines



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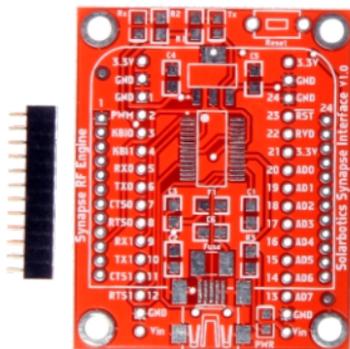
1-866-276-2687

# Parts

3.3V 1A  
MCP1826S-3302E  
Voltage Regulator



2 x 0.1µF 0805 Capacitors



Synapse Interface PCB

2 x 12-pin 2mm  
Female headers

## Introduction:

If you're here, you recognize the coolness of the Synapse SNAP module. But like anything electronic *and* cool these days, they can be a bit of a pain to use, so here's a breakout/voltage board for Synapse modules, based on our Synapse-to-FTDI breakout board.

This PCB was designed to be assembled by a machine using "surface-mount components", but as it's so simple and the parts aren't that nasty to handle, here it is as an inexpensive kit!

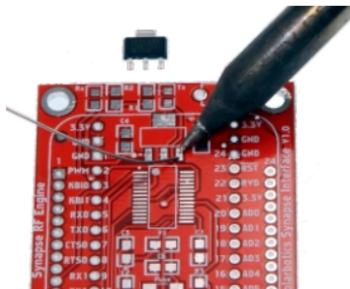
This design is release under the Open Source Hardware Definition v1.0

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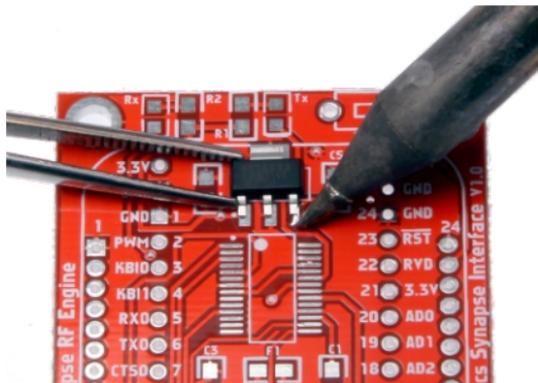
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# Construction

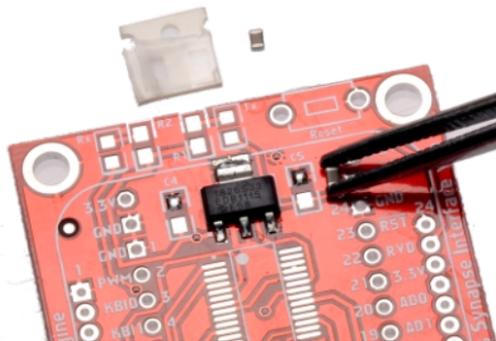


**Step 1 - Presolder pad:** The trick to SMD soldering is to presolder *one* pad, place the component on that pad, and remelt the pad.

Melt a small bubble of solder to the bottom right pad



**Step 2 - Position & Remelt:** Lay the voltage regulator on the pads, and remelt the solder bubble so the part leg melts into the solder



**Step 3 - Finish VReg:** Nudge the voltage regulator so it sits squarely on the other two pads, and solder the pins down.

**Step 4 - Solder in capacitors:** Just like for the last part, add solder to *one* pad of each set of capacitor pads on either side of the voltage regulator.

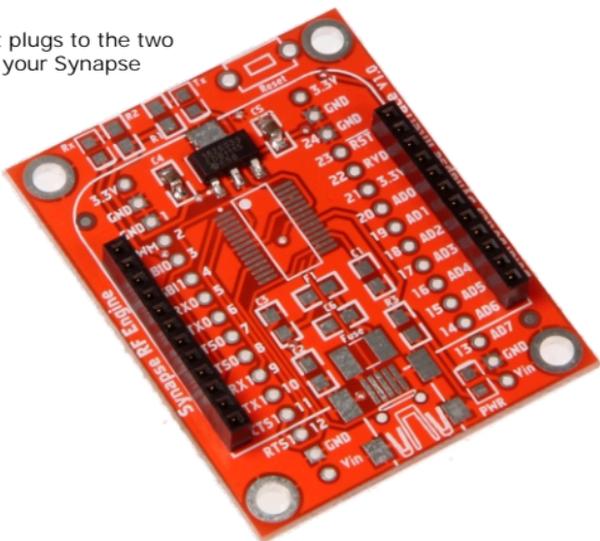
Add the capacitor to the pad, remelt, and make sure the 2nd pad is aligned. Finish soldering it down, and repeat for the other capacitor!

# Construction

## Step 5 - Add Plugs:

Add the 2mm spaced 12-socket plugs to the two sides, and you're ready to plug your Synapse unit in it.

Add power to the "Vin" and "GND" lines at the bottom of the board, and you're ready to hack your Synapse SNAP module into your project!



# Related Items

Solarbotics Synapse-to-FTDI Adapter SKU# 39250



Solarbotics Synapse Breakout Board Kit SKU# 39255



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