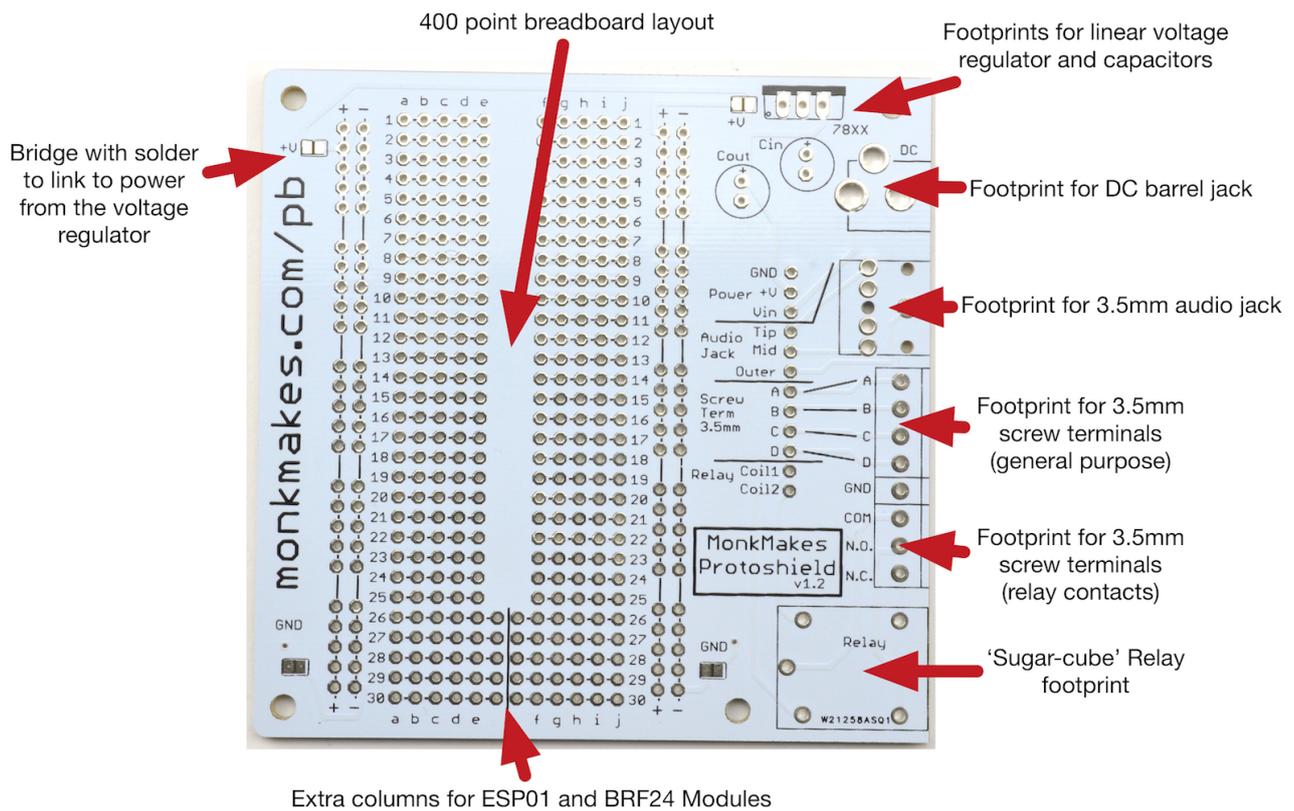


# MonkMakes Protoboard

MonkMakes Protoboard is sold in a number of configurations, you can just buy the boards on their own in packs of 5, the separate side components, or a kit containing the side components, connectors and a solderly breadboard.

MonkMakes Protoboard is designed to make the creation of one-off projects and prototypes as simple to make as possible by:

1. Using the same layout as 400 point 'half' solderless breadboard (inspired by Adafruit's Permaproto boards)
2. Adding component footprints on the side of the board for connectors and a relay that don't fit straight onto breadboard. These are unpopulated so just add the parts you need for a particular project.
- 3 Adding component footprints on the board for a linear voltage regulator to add a power supply (if you need it)
4. Add longer breadboard rows at the bottom of the board for modules that use 2x4 or 2x5 pins such as the ESP01 or NRF24 modules.
5. Solder jumpers to allow supply rails to be connected to power supply (if you want)

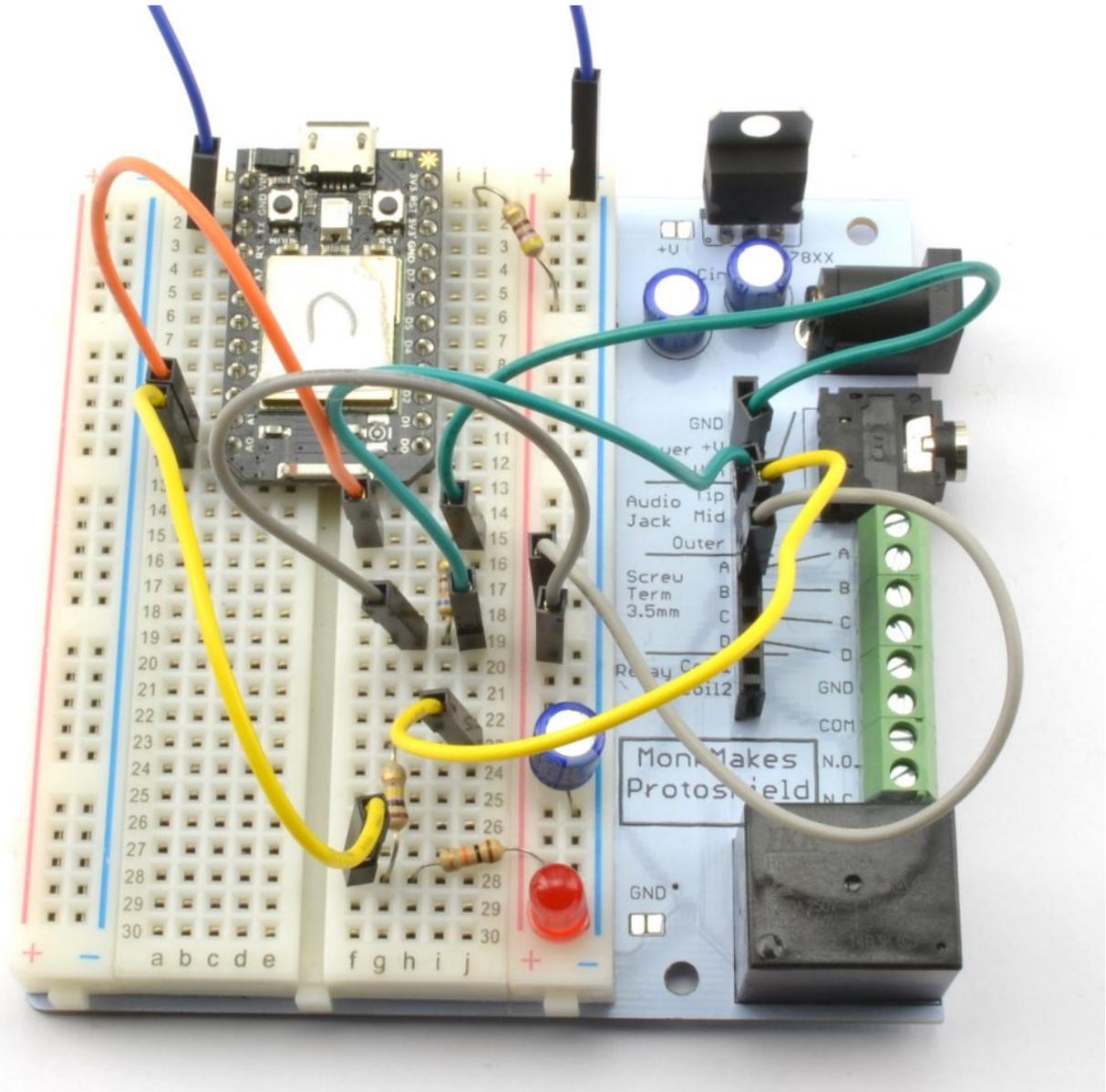


As well as being a good place to solder up the final design, I have also found it useful to stick a solderless breadboard onto one protoboard with a full set of components to be used for the solderless breadboard phase of the project. That way I can prototype without the need for any soldering, using jumper wires to connect to the screw terminals, audio jack etc.

## An Example

Here is what I did when I was making an energy monitor for my solar panels using a Spark Core.

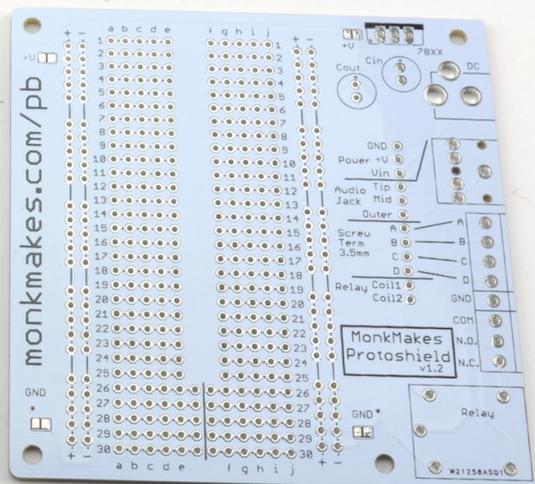
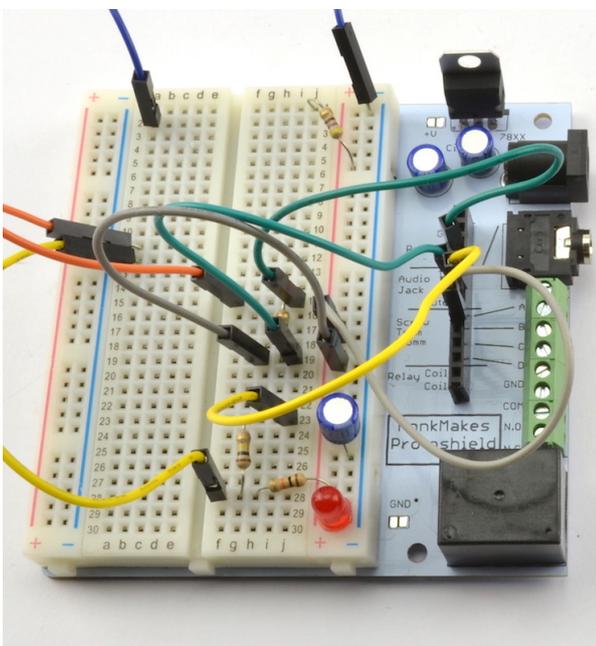
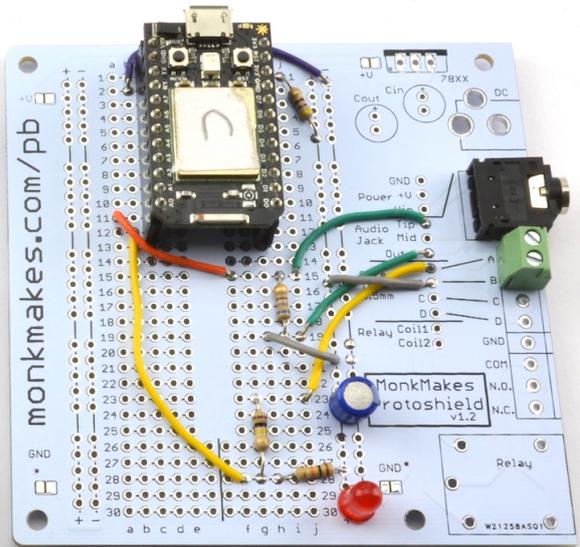
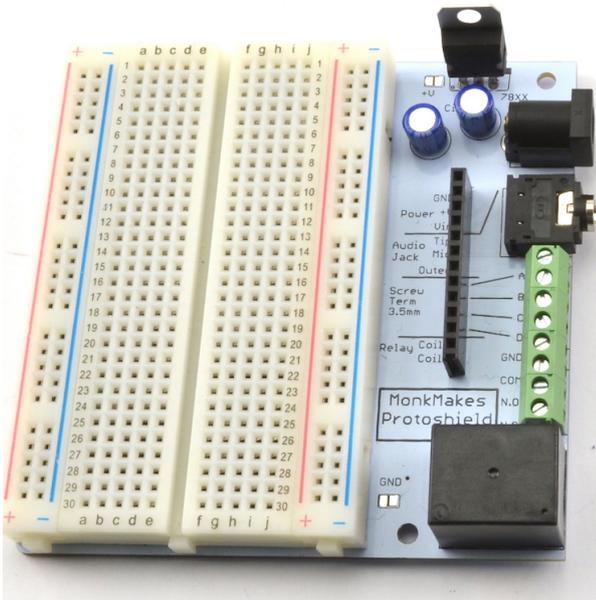
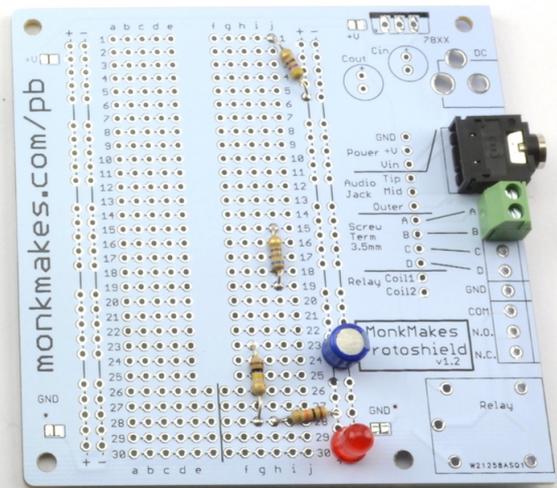
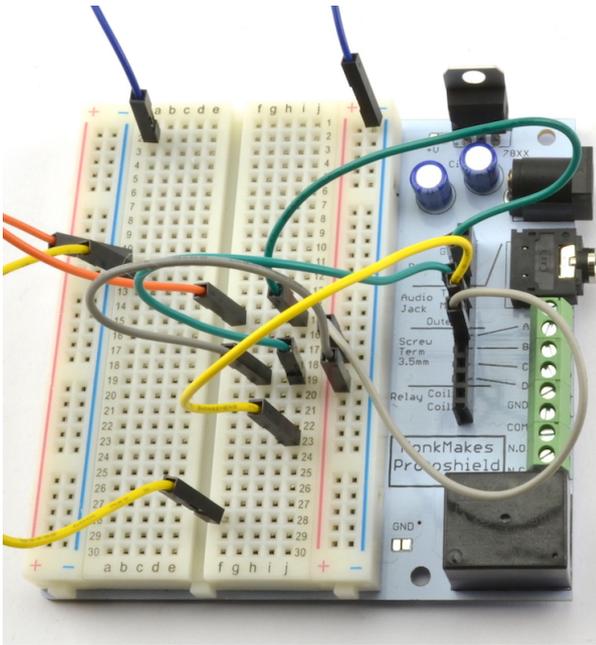
First off, I turned one of the MonkMakes Protoboards into a solderless prototyping board by soldering on all the connectors and sticking a self-adhesive solderless breadboard onto the protoboard. This board can then be used each time I have a new design to prototype.



The next step is to build the design.

The audio jack is used to connect the CT sensor that measure the current and two screw terminals are connected to an AC transformer.

Once it was all working, I just transferred the solderless breadboard design to a second protoboard to make the design more permanent.

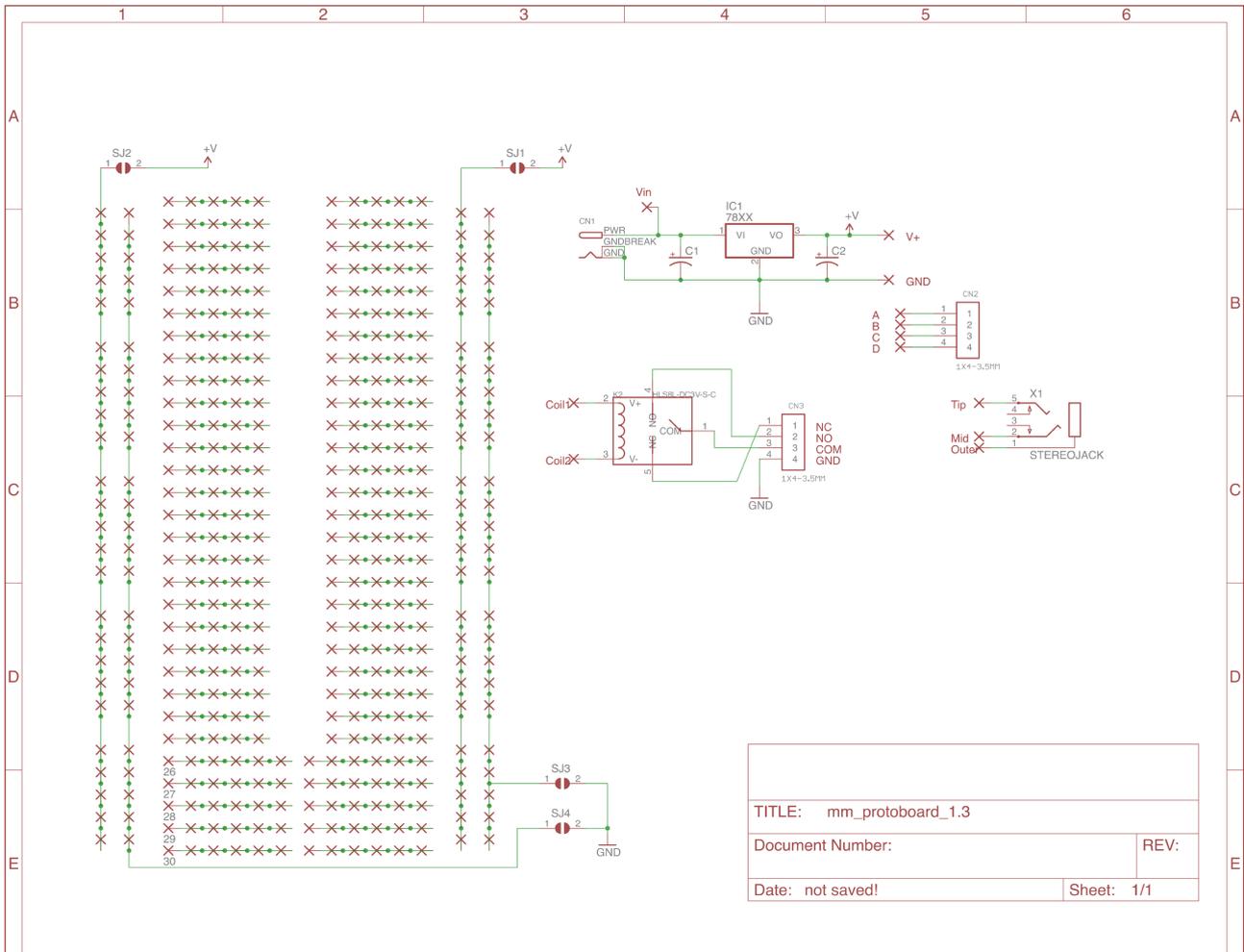


This is super-easy to do because everything is in the same place and could just be transferred from the solderless build to the soldered protoboard.

This board is ideal for use with any project that you could start with a 400 point solderless breadboard. So that means pretty much any project. Its great for projects that use an Arduino Pro Mini or even for making an off-board Arduino.

## Schematic Diagram

Here is the schematic for the board, so you can see just how the power supply, relay etc are connected.



## Side Components

Buying components can often be time consuming and annoying. So here is a table for product codes for some popular suppliers where you can get the 'side components'. If you find other sources, please comment below and I'll add them in.

	Manu code	Farnell	Digikey
DC JACK SOCKET	Multicomp MJ-179PH	1737246	CP-002A-ND
100UF CAPS	Multicomp MCGPR16V107M6.3X11	9451080	732-8598-1-ND
V-REG 7805	L7805CV	9756078	497-1443-5-ND
3.5MM AUDIO SKT	Cliff FC68131	2518188	CP1-3523N-ND
3.5MM SCREW TERMS	Camden Boss CTBP3051/2	2527545	609-4725-ND
5V RELAY	IMO SRM-1C-SL-5VDC or OMRON G5LE-14 DC5	1094018	Z1011-ND
12x1 HEADER SKT	Fischer BL1.36Z	9728856 (cut to size)	1212-1199-ND