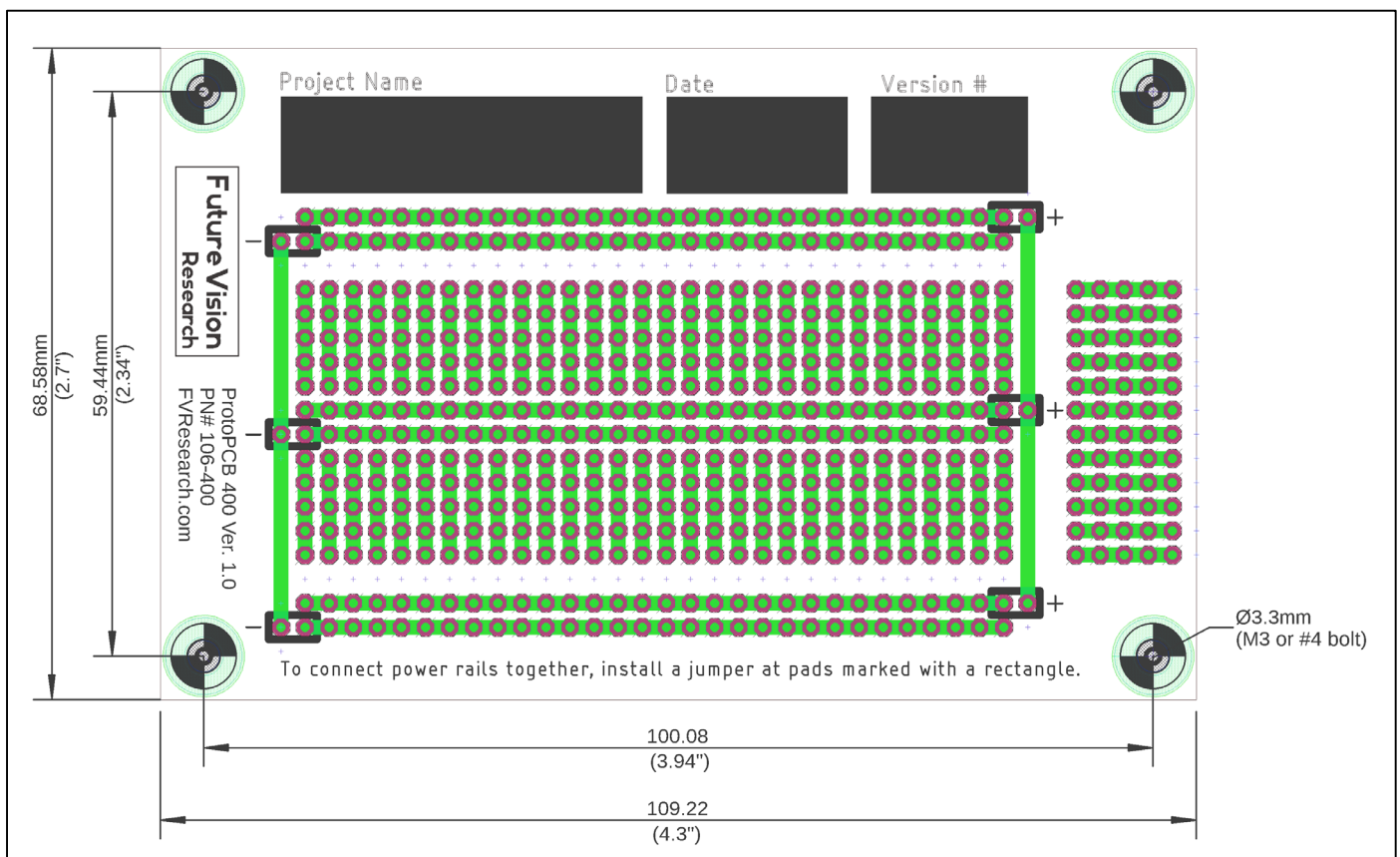The ProtoPCB 400 solderable breadboard helps you make permanent versions of your electronic projects. All conductive paths (shown in green on Figure 1) are based on the standard 400 point breadboard. You also have an extra pair of power rails running down the standard sized valley in the middle of the board.

Features include:

- Pad spacing of 2.54mm (.1") - just like a breadboard
- Dual power rails on the top and bottom of the board, plus a bonus set down the middle
- Special side traces that allow you to connect the top, middle, and/or bottom power rails
- Thirty columns of connections just like a 400 point breadboard
- Twelve extra sets of horizontal pads on the side of the board, allowing additional parts or interfacing to external devices
- Boxes on the front of the board to document your project name, date, and version number
- Box on the back of the board keep "change notes" or other documentation

Figure 1 – Front side of the PCB 400 Solderable Breadboard

Page two provides our recommended tips for soldering your projects.

Recommended tips for soldering your project:

- The top rail of each pair is considered to be the positive (+) rail. (Compare to a breadboard with the red power rail on top (Figure 2).
- The polarities for the power rails (+ and -) are marked on the back of the board (Figure 3)

Figure 2

- Should you desire to do so, you can connect the top, middle, and/or bottom power rails using the "common conductors" running on the left and right sides of the board. To connect two power rails together, solder a jumper across the two pads marked with a rectangle. If you want all three power rails to be connected, you need to solder jumpers on all three rectangles.
- Avoid created solder bridges to make connections. Use jumper wires instead.
- All parts and jumpers should be installed to the front of the board. This helps you keep track of all connections.
- Keep part leads short to avoid crossing other solder pads (which will cause a short circuit)
- Keep insulation in place on jumper wires and only expose the portion of the wire that will be inserted into the solder pad hole
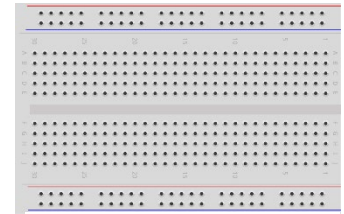
Before applying power:

- Trim all leads
- Check for solder bridges and pieces of trimmed leads

Figure 3 - Back of the PCB 400 Solderable Breadboard