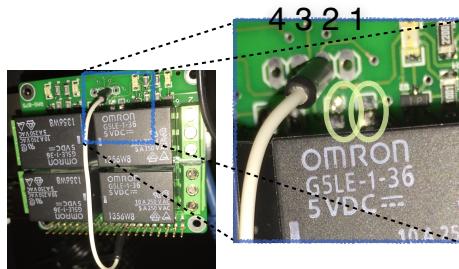


Hardware: BC Robotics Raspberry Pi 4 Channel Relay HAT

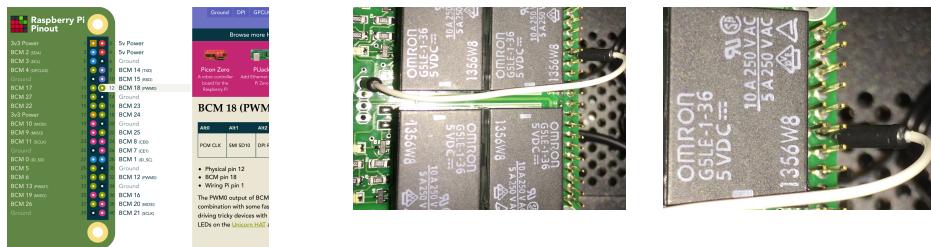
I opted for this board since it fits right in on top of a raspberry PI, without having to do much work.

The tall relays require extra tall stacking headers on the relay board (not so much) as well as the proto HAT board, and it just barely made a connection when using <http://adafr.it/1979> connectors and having nothing at the bottom of the proto board. See if you can find one that is a bit taller for the proto board.

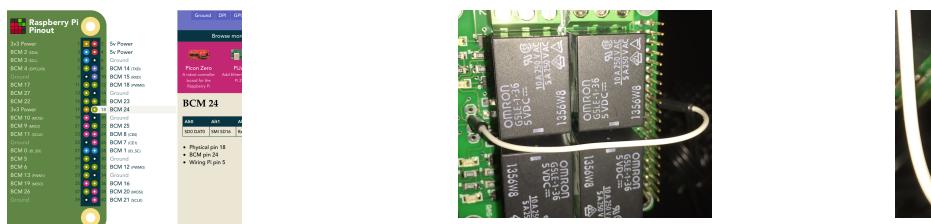
1. Unsolder default ports for the first two relays 1 and 2



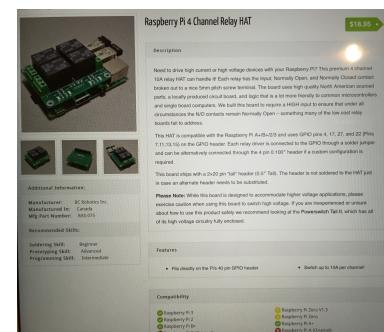
2. Attach a wire from relay 1 to gpio #18



3. Attach a wire from relay 2 to gpio #24



Relay number

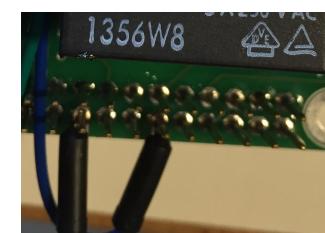


The default gpio ports for the four relays are #4, #17, #27 and #22.

The gpio #4 and #17 are used on so the proto board, so you should change the first two relays into gpio port #18 and #24 (relays 3 and 4 stays on the defaults gpio #27 and #22).

In order to do that, you have to remove two solder blobs connecting the default pins #4 and #17, and add wires to connect to gpio pins #18 and #24

I made one end of the wire a loop, that would fit tightly around one of the connector legs, so I could potentially move to other gpio ports. If you do not want to do this, you can solder the wire directly to a pin, so that it does not loop over the edge of the board.



Below the relay board

The Bottom of the relay board is not protected against shortcuts. The marked lines should be protected well against touching anything. Using a glue gun to cover the entire surface around the marked lines gives a good protection. The board itself has a few places where the wires gets too close to low power control wires, according to high voltage guide lines, so I hope that BC Robotics will consider changing this in their next revision.

