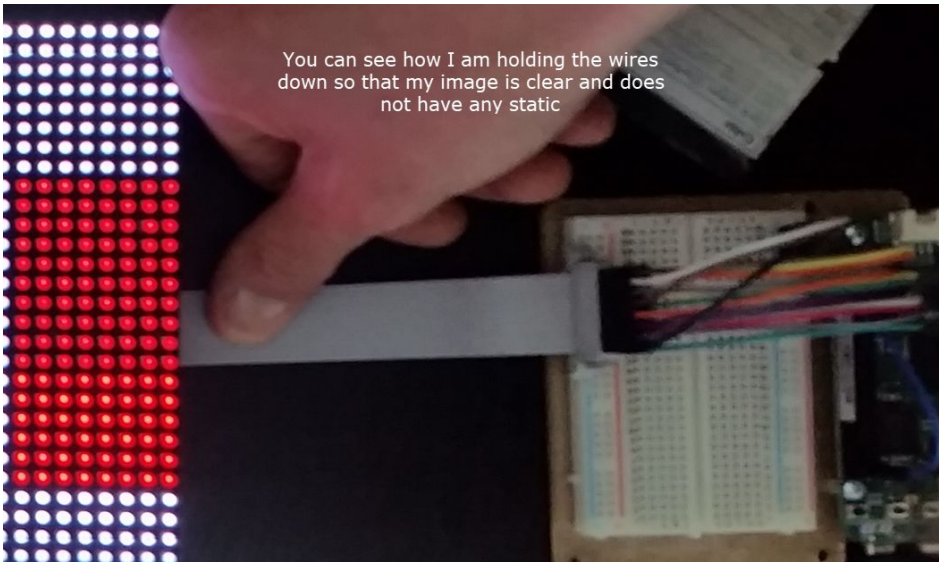
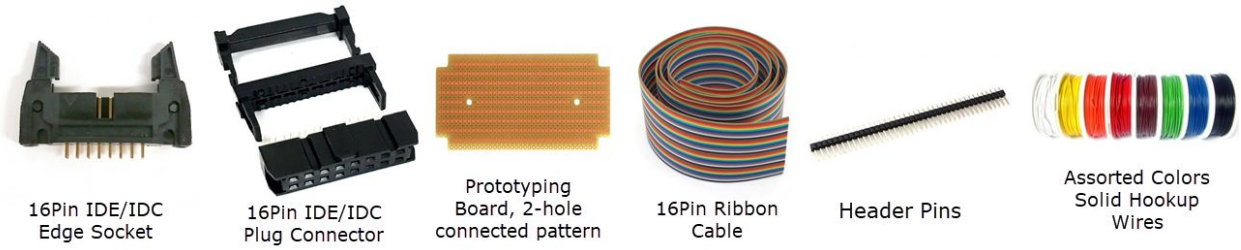
LED Matrix:
Custom Beaglebone Header Guide

For our project we had chosen to work with a 32x32 LED Matrix. One issue we came across was the fact that the cable that came with the LED Matrix was quite short and also setting it up to work with the Beaglebone was very time consuming. Also, we got static in our matrix when we ran it because of how unstable the jumper cable connection to the Beaglebone was.



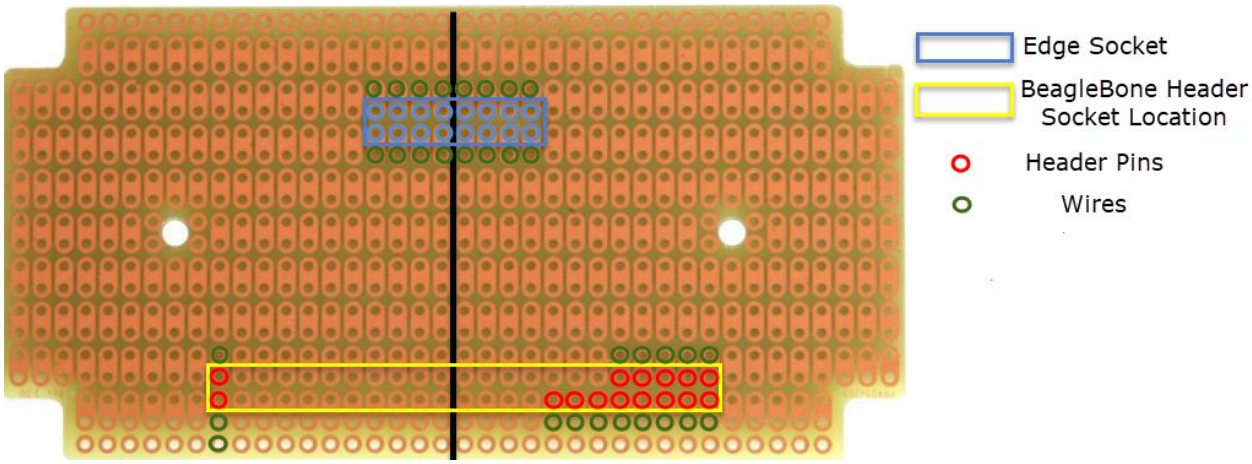
We decided that we would like to create a customer pin header which would extend our cable and also get rid of the jumper wires which in turn would get rid of the static which we are experiencing when we try to display something.
The parts which we needed for this were:



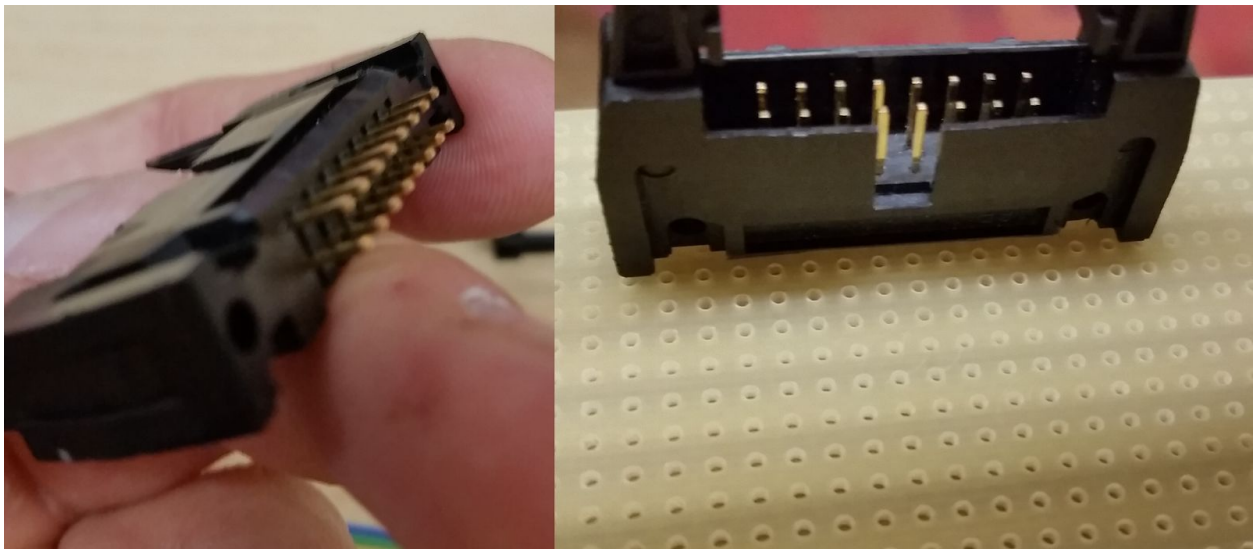
First thing we did was create a long connection cable with a 16-Pin Plug Connector on each end, we assembled it by just crimping the connecters onto the cable.

As you can see the cable we made is quite a bit longer than the cable that came with the Matrix.

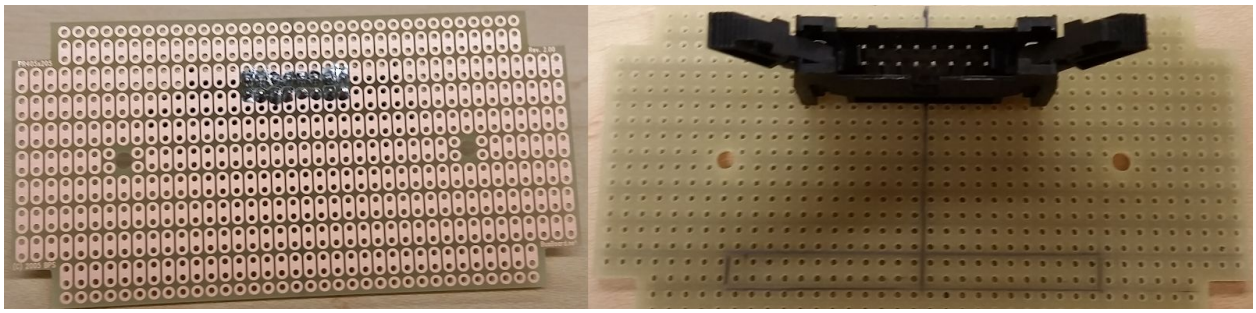
We next arranged the 16Pin Edge Socket, Header Pins and Wires on the Prototyping Board.



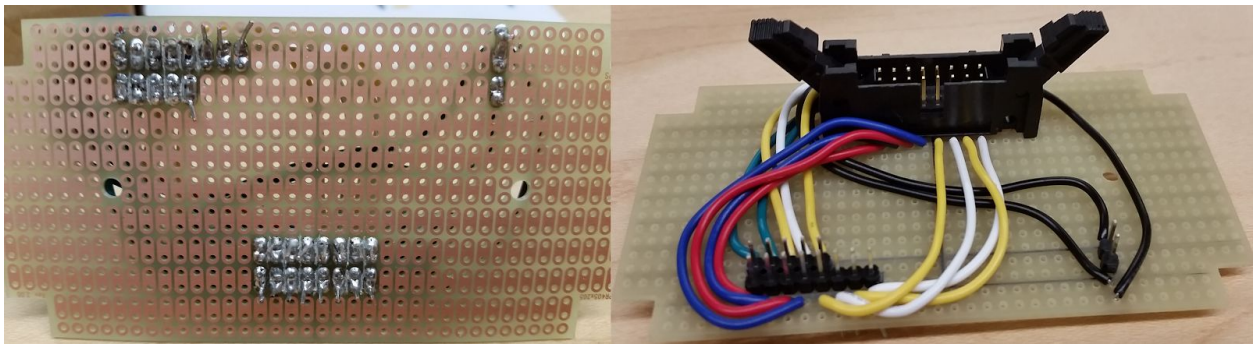
Before soldering, we noticed that one side of the Edge Socket was protruding on to where our wires needed to go so we shaved the plastic side with a knife to get rid of some of the extra material.



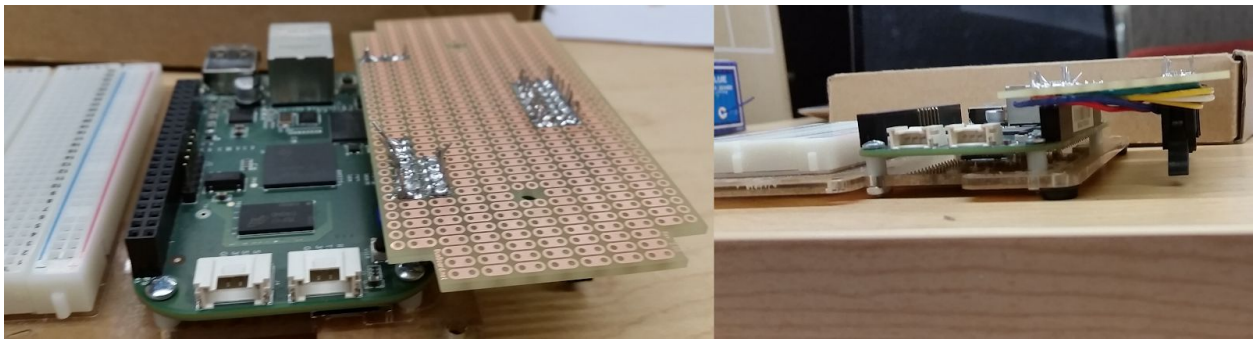
Next we started to solder, starting first with the Edge Socket.



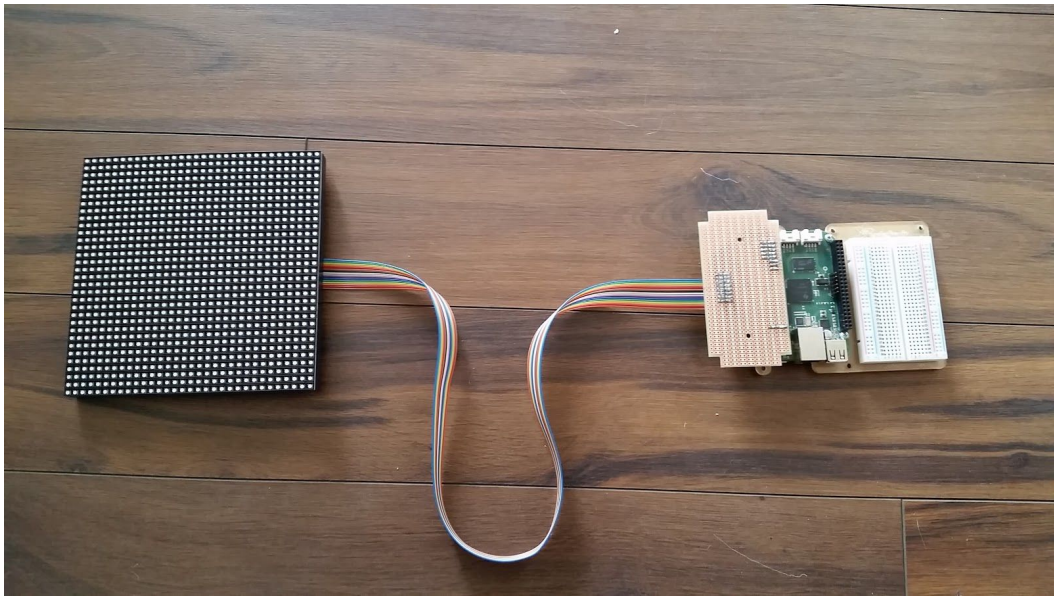
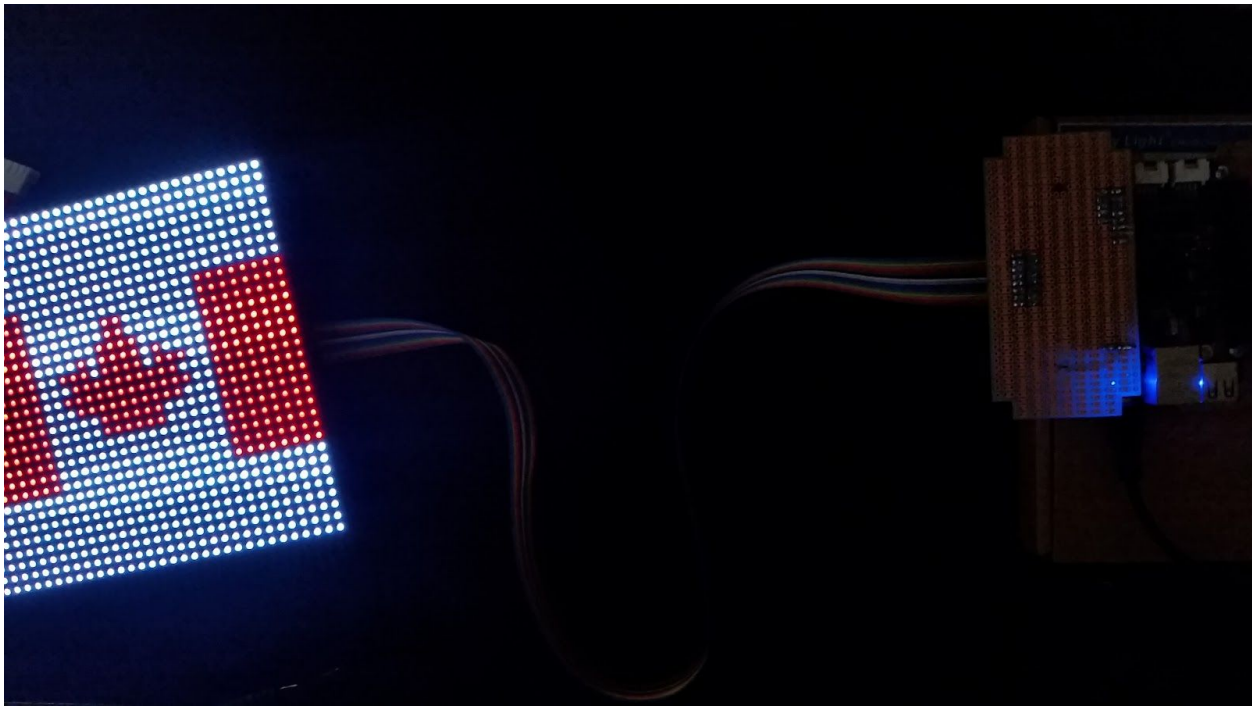
After mounting the Edge Socket, we soldered on the rest of the components



As can be seen from the image above, we only attached the Header Pins which we will use in our C-Program. Hence, we only soldered 15 Header Pins rather than the full 46, which the BeagleBone Header Socket supports.
This was the final product:



And this what it looks like hooked up with the LED Matrix:



In the end we got rid of the static which we had due to the jumper wires.