

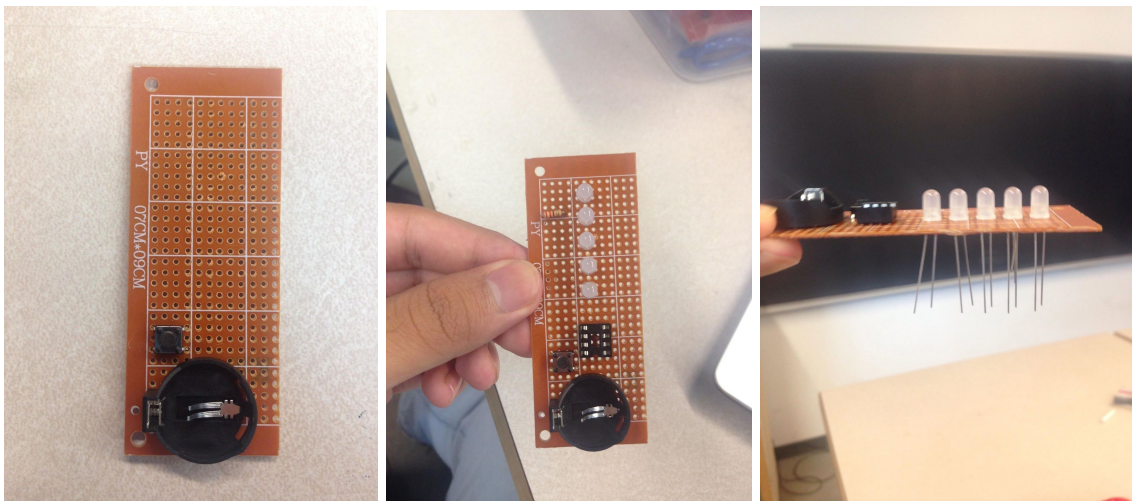
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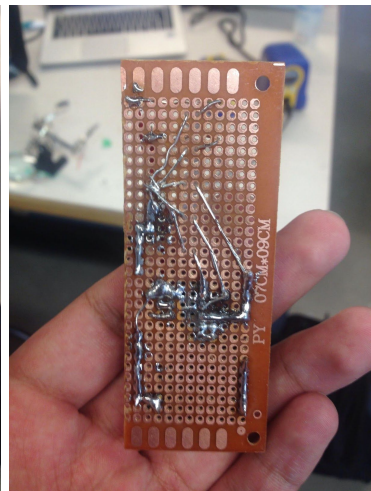
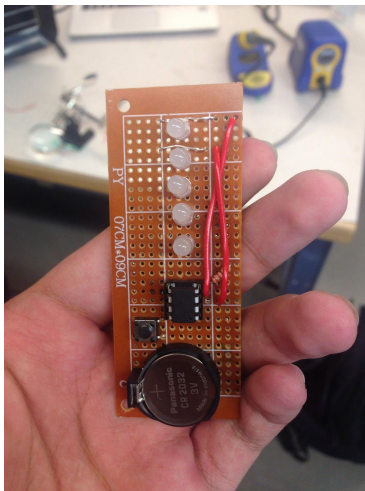
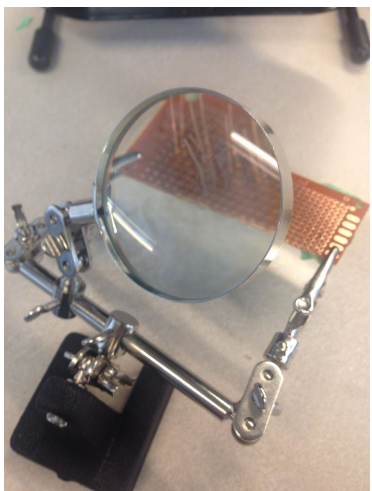
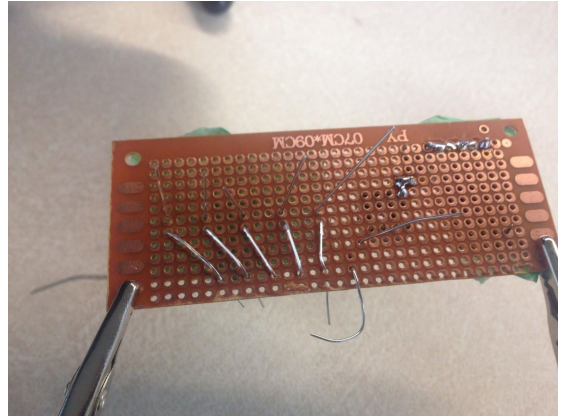
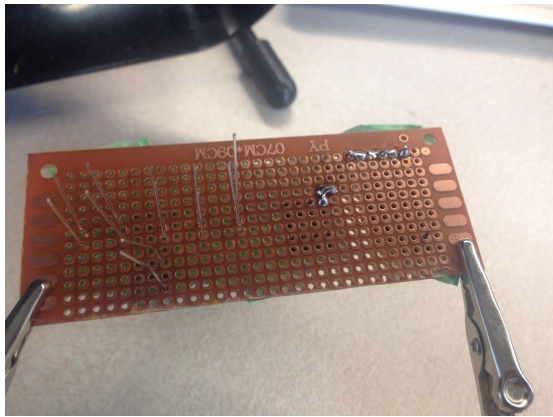
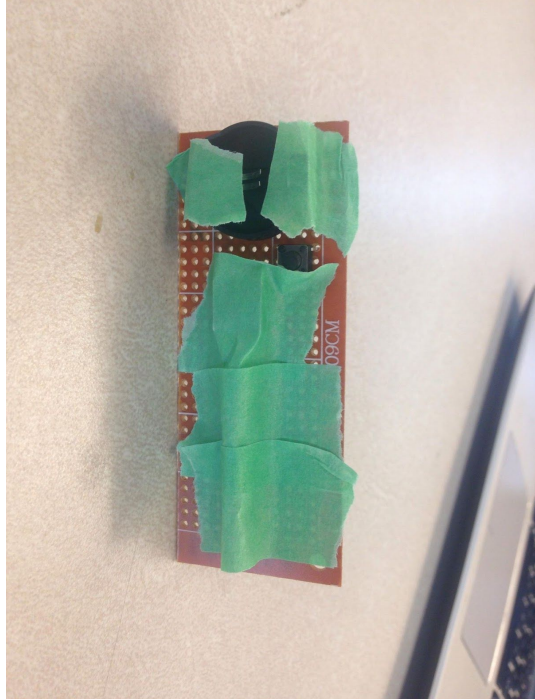
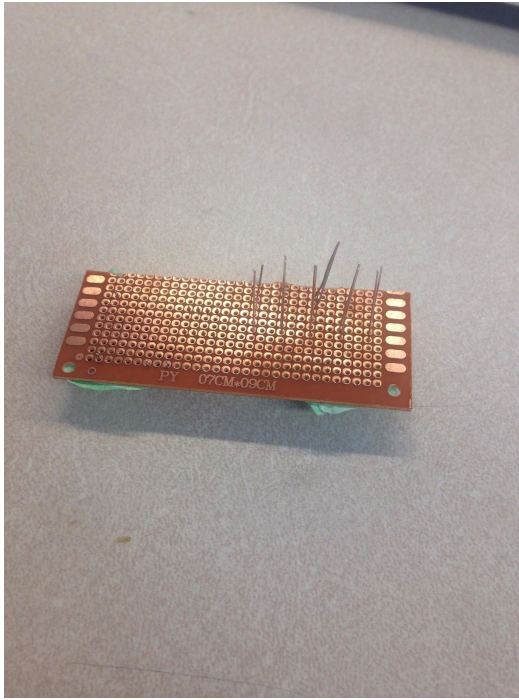
Etude II: Perceptron P

Part One:

The process of making the Perceptron P turned out to be quite the ordeal for me. But it was enjoyable nonetheless. The first issue arose when it turned out that the USBTiny wasn't recognized by my windows computer, I decided to begin building the circuit first instead. Eventually I was able to use Elio's computer to transfer the code onto the ATtiny85.

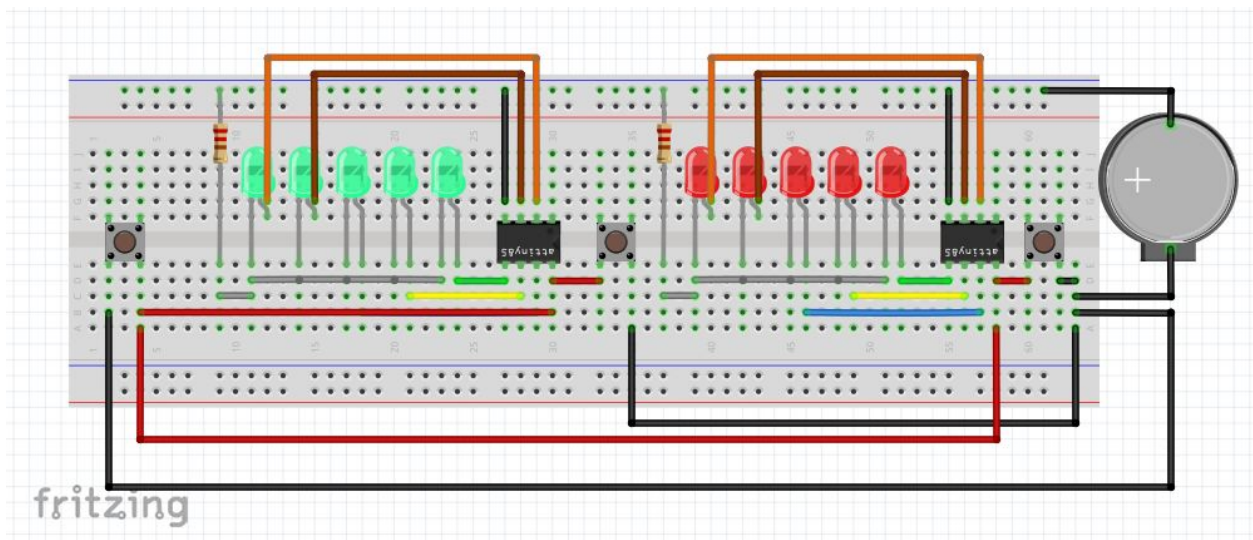
I first began to arrange how the battery, switch and ATtiny adapter would be placed on the circuit. At first everything seemed to be going well as I began to place the LEDs and the resistor. Troubles first came up when I realized that I had arranged the LEDs too close to the top and in a manner where they would have a hard time connecting to the ATtiny85 in the way they were supposed to. I began to affix them as I could, Ultimately relying on wires to complete the circuit. The next big issue came during and after this. I spent a great amount of time trying to solder connections to the ATtiny85. I'd build paths but the paths were often so close to one another that they would melt together into big blobs that ruined the connections. I constantly tried to fix this over and over, ultimately resolving to use some parts from the LEDs and leaving the board fairly burned to do so.





Part Two:

The main difference between the two circuit schematics is that one uses a single resistor whereas the other has Five, one for each LED. What this results in mainly is that should the resistor fail in the first version, none of the lights will work, whereas in the case of the second, only one of the lights will fail, and it becomes easier to isolate the issue that way as well. Another potential difference is that, since electricity takes the fastest/easiest path, or the one of least resistance, the first lights in the circuit may ultimately get more electricity than the later ones, whereas with one resistor they are mostly funnelled into the others. This may be wrong though.



For my remade version I didn't know how to optimize it really, but I thought it'd be interesting to make it such that two separate messages could be displayed, either individually by pressing the corresponding switches and then both at once with a third switch. There are most certainly better ways to do this and optimize it, like perhaps with a different type of switch. But I also quite like this version, in spite of the mess. Thinking of other ways to make even bigger messages or even codes is also interesting to me.