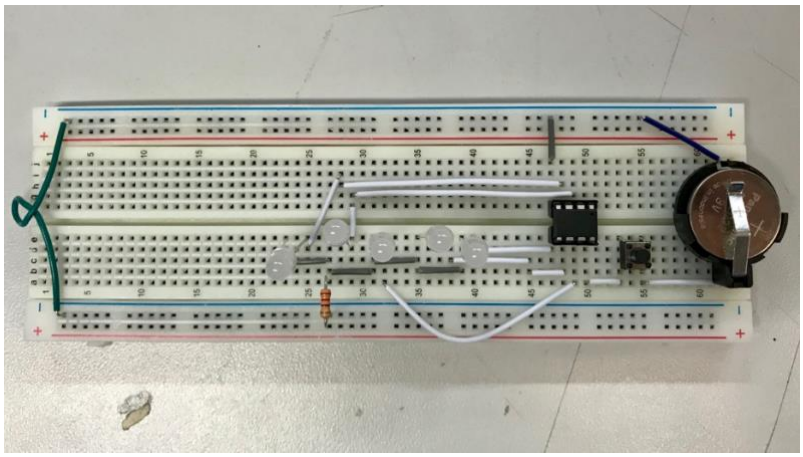
ETUDE TWO

Perceptron-P

PART ONE

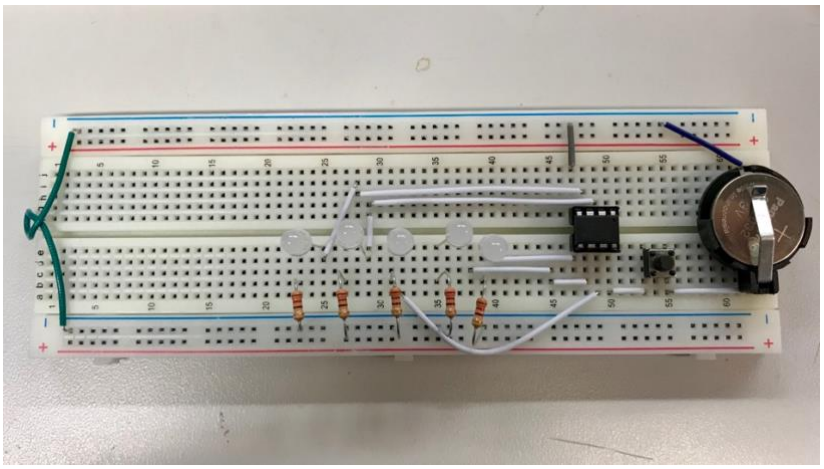
Here you can see my masterpiece for part one.



What I basically did was I put the Graphic Depiction and the Electronic Schematic of the Circuit next to each other and tried to understand and absorb how current flows, and what does each component do. After reaching to a clear understanding, I started to place things on the bread board, and voila!

PART TWO

And here what you see is my Alternate masterpiece.



The difference between this circuit and the one before is the amount of work load of the Resistor. For all LEDs, I and V are the same, thus, according to "P=V * I", the power they use is also the same. The first point here is that the resistor in the first circuit does 5 times more work than each resistor in the alternative circuit; hence there is a great chance that the amount work load exceeds the resistor's limitation and eats it up. This then leads to the second point which is about function of the circuit. In the first circuit if the resistor dies, all LEDs go off, however, we lose just one LED in the alternative circuit in case of a resistor failure. Based on these facts, we can say that alternative circuit is more reliable circuit. Nonetheless, for small projects like this, there is no need for such a reliability.