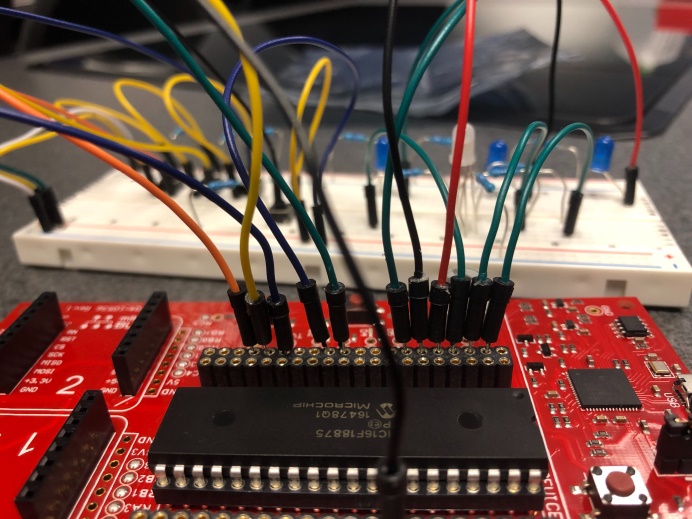
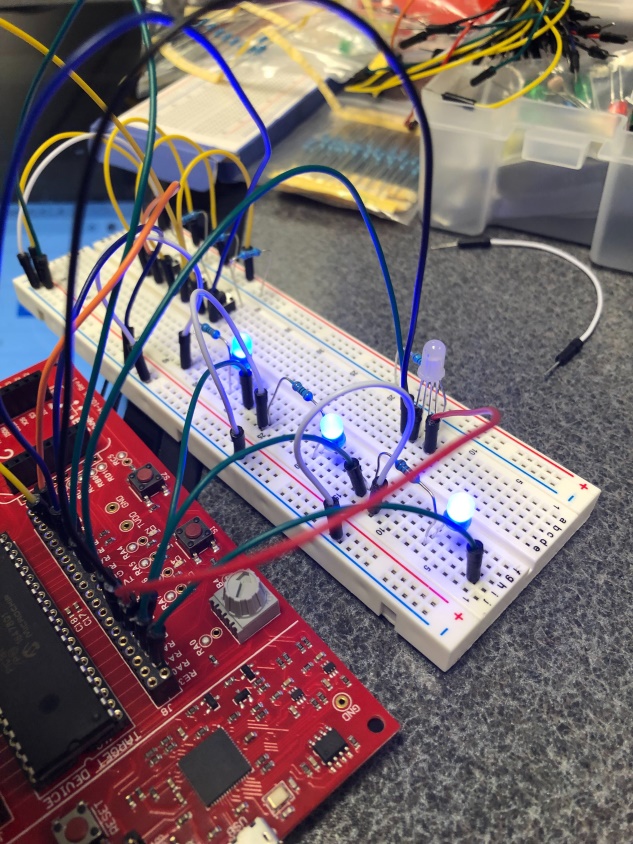
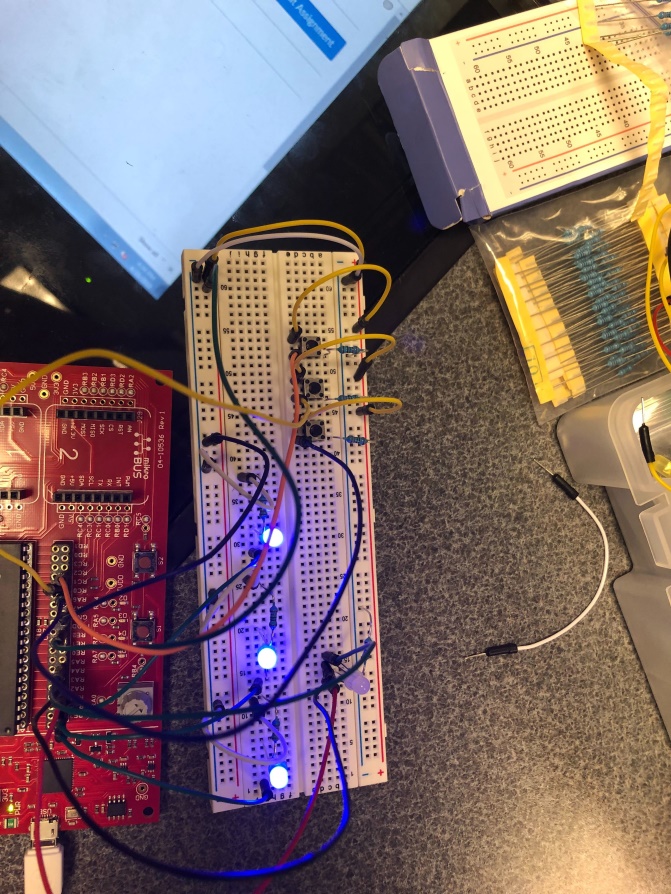
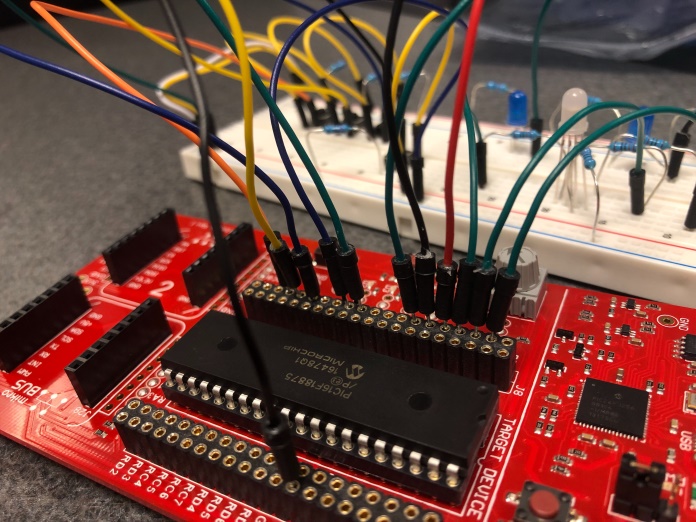
**Project Description**

**Pseudo Code**

* When the Program is run 3 blue LEDS will turn on indicating the bomb is active and that you have entered state 1.
* There will be three buttons next to the 3 LEDS and will be used as the inputs for our bomb. When you enter a correct input (Middle Button) the program will move to substate A, another correct input (Left Button) and you will go to substate B, another (Right Button) and you will go to substate C.
* After reaching substate C the program will immediately put you into state 2. In state 2 one of the Blue LEDS will turn off indicating that the first lock has been unlocked. The sequence will then reset and await the next correct order.
* Once you press the first correct input (Right Button), you will enter substate D. After the next correct input (Middle Button), you will enter substate E. Then after the last correct input (Left Button), you will enter substate F.
* Once you enter substate F you will immediately be put into state 3. In state 3 another blue LED will turn off indicating another lock has been unlocked and there will only be one blue LED left.
* Now that you are in state 3 the sequence is reset is awaiting the next correct inputs. After the first correct input (Left Button), you will enter substate G. Then after the second correct input (Middle Button), you will enter substate H. Lastly after the third correct button is pressed (Right Button), you will enter substate I.
* After entering substate I you will be sent to the final state. In the final state all three of the blue LEDS will be turned off and there will be one LED that pulsates all 7 colors saying that you defused the bomb.
* To redo defusing the bomb press the interrupt button and you will be taken back to state 1.

**Finite State Diagram**

**Wiring Diagram**

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