Document Info

Tommy, ART385, Project Three, 10 May 2020

Summary

The imaginary prototype I created is based on a bomb scenario. As seen in the movies where there is a scene with a bomb, there is always a specific method to defuse the bomb. The defuser must figure out by themselves how to defuse the bomb without triggering it. There is also a time constraint that occurs with the situation. The prototype is a representation of a simplistic version of the bomb scenario if it were to happen.

There are 2 ways in which the bomb can explode. The first is with the timer, the bomb starts counting down from 5 minutes. The bomb defuser has 5 minutes to figure out how to defuse the bomb. The time is displayed on the screen of the bomb to indicate the amount of time to the explosion. The second case where the bomb can explode is if it detects motion. The LDR value is used to represent the motion value. The higher the brightness, the more the motion. The bomb planter would not want the bomb to be defused, so if the bomb detects any motion, it will explode. The amount of motion the bomb is detecting is shown with 2 lights at the bottom of the bomb. It will turn from green to red depending on the amount of motion detected. If it turns totally red, the bomb explodes. In order to defuse the bomb, the bomb defuser has to keep motion to the minimum while bypassing the 4 password locks. The password is randomly generated every time the prototype runs. The defuser will enter the password by turning the potentiometer. There are 4 lights at the top of the bomb that shows the state of each lock. After a lock has been bypassed, it will turn green and the defuser can continue defusing the next lock until they have defused all locks.

Target Audience and Intended Interaction

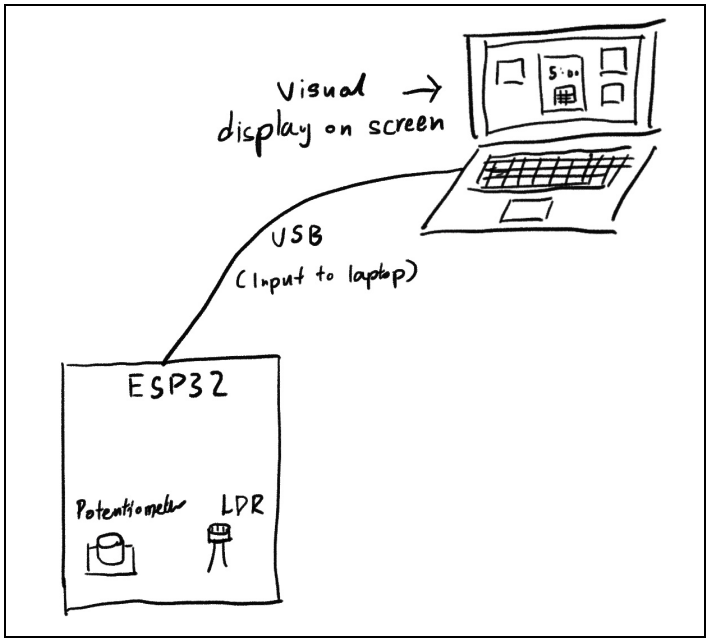
My target audience is people in the military. In countries where military training is mandatory, it is not unusual for people to be trained on how to defuse a bomb. My prototype can be used as an introductory course into bomb defusing. Another target audience can also be escape room facilities. Escape rooms are a popular team activity game where the rooms are made to reflect an actual scenario that the players have to escape from. My prototype can be used as a simplified bomb device where the players have to defuse.

Aesthetic Approach

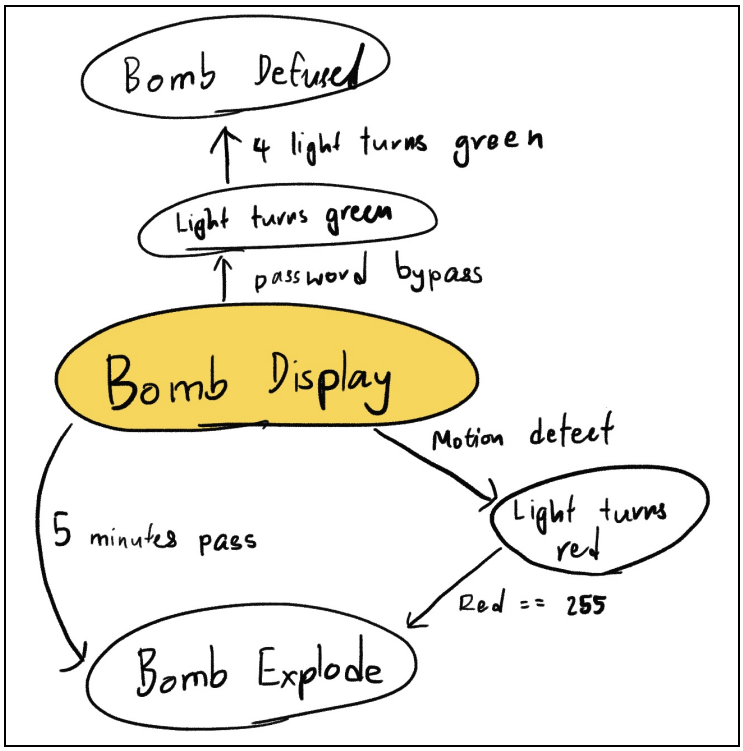
I pick lifeless colors to create a serious environment. The text and background are all in black and white. The bomb is shown with more features than is actually used in the prototype, this is done to confuse the bomb defuser while creating a more intimidating

environment. The timer is shown to be a typical stopwatch timer as it is the best method to display urgency. Ultimately, everything was done to create a tense and intimidating environment.

Hand-Drawn Interaction Map



State Machine



Real-Life Prototype Example

My prototype can be used as a basic introduction to how bomb-defusing works. It will require them to observe the situation and think critically about how to proceed, just like in the real scenario. My prototype can be set up in the military camp where personals can attempt to decipher and defuse the bomb. The military instructors can lead a protocol program where they teach people how to approach an active bomb. As there are many situations in reality where a suspicious object has been reported, the protocol remains the same as the object is assumed to be a bomb. The same approach can be taken to my prototype.