 Some were effective while some were not.

Both designs worked reasonably well; however we decided to go with the initial capacitor sensors due to our familiarity with it as well as the aesthetics.

Firstly, the group members began designing the capacitor sensors. Throughout the duration of the project, there were two ways in which the group members decided to design the sensor. The first method was to design the capacitors with a canvas (dielectric) and two tins of aluminum foil on either side while taping the four capacitor sensors to keep it in place. This will be expanded upon in Section 5.6.1. Another method in which the capacitor sensors were designed was by using air as a dielectric and having two bare aluminum foils taped upon the cardboard. For the capacitor sensor code, there were two ways the group thought of setting up the capacitor. One way was to use a fixed value after placing our hand to obtain the period when our hands were on the capacitor sensor. Another way that was suggested by Dr. Calvino-Fraga was that an average of 256 values could be calculated and that would automatically calibrate the capacitor sensors.  After evaluating both methods, we decided to use the first method although inferior, but because we were short on time.

Also, one of the group members tried to design the random number generator. He decided to go about it in two different methods: using registers to generate the random numbers or using a variable to do so. At the end of the project, it was best decided that using the variables would be much better in case one of the other members accidentally tampered with the registers. In hindsight, a third and much better solution could have been constructed: using the registers while using the correct assembly calling conventions. Although this method would not have worked any better than the others, it was a great opportunity to broaden his understanding of the assembly language.

Another solution we had to come up with was how the game code was going to operate. Various modifications were made to the initial game code layout. The initial game layout just was able to run for one game and would have stayed at game over. However, the group decided to make it possible for the game to be restarted when a button is pressed. This was not so much harder to implement, but would have made for a stronger interface between the players and the game.

At the end of the day, time was a limiting factor in how the game would be conducted. If it were possible, we could have thoroughly assessed and even implemented the most optimal solution to complete the game. However, the game works rather well given the circumstances.

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