Lab 6

Title: Electronic Dice Game
Date: 7/3/2018

Procedure:
This lab implemented a more complicated version of the casino-type game from lab 5. It would not be edifying to describe the rules in detail here. The key components of the lab were the modification of the random number generator to create numbers only from 1 to 6, and the addition of a state machine to simplify/keep sane the organization of the program.
Results:
The program was implemented with a state machine. Moving from state to state was implemented with the touch of the roll button. Initially there was strange behavior as the button would transition from one state to another before the user could take their finger off the button. A bit of logic was implemented that prevented state transitions until the button had been "unpressed". This seemed to fix the issue, but the TA -Shashank Hegde- Also suggested that implementing a button sampler could have also fixed the issue.
Summary/Conclusion:
This lab illustrated how to implement safeguards (particularly state machines) to prevent bugs in complicated code. State machines allow for detailed diagrams to be created before any actual code is written, and thus prevent many mistakes that can happen as a result of poor organization. It's probably the best way to implement a complicated machine.