Lab 5

Title: Casino Type Game
Date: 6/26/2018

Procedure:
The random number generator from lab 4 was implemented into a simple game, there was a button to generate a pair of random numbers, and a button to reset the game. When a random number pair was generated, the program checked if the two numbers were equal, if they were, the game was declared “won”. Otherwise the game kept going and displayed a “loss” message.
Results:
The completed program was capable of having its seed set as before, and had reset and roll buttons. The random numbers were generated constantly, pausing only when a win was recorded. Amusingly, the fastest way to a win was to hold down the roll button until a win was recorded. As there was no mechanism in place to prevent this.
Summary/Conclusion:
Simple implementations of a random number generator are relatively easy to program. The only hangup is timing a clock signal properly to prevent oddities. An interesting example of this was timing the refresh rate of the display. Basically, the display had to update fast enough to give the illusion of smooth change, and also faster than the changing of the random numbers, but not faster than the limitations of the hardware. It turns out a clock divider is pretty important despite being boring.