

## Lab 7: Finite State Machine

The purpose of this lab is to build a Finite State Machine (FSM) on the breadboard.

Design an FSM. Put the **state transition diagram** in your report. (If you are looking for software to draw diagrams, draw.io is a good online service). Write down the **state transition and output tables** in your report. Find the logic and implement the circuit on your breadboard. Check “LogicGates.pdf” for available logic gates in the lab. Read datasheets before using components. You may take inputs from buttons or switches, and show your results on LEDs or an oscilloscope. (See “BTNcircuit.jpg” and “LEDcircuit.jpg” on Moodle). Show your FSM working to your TA and get their approval. Please return any components that you have borrowed after the lab.