

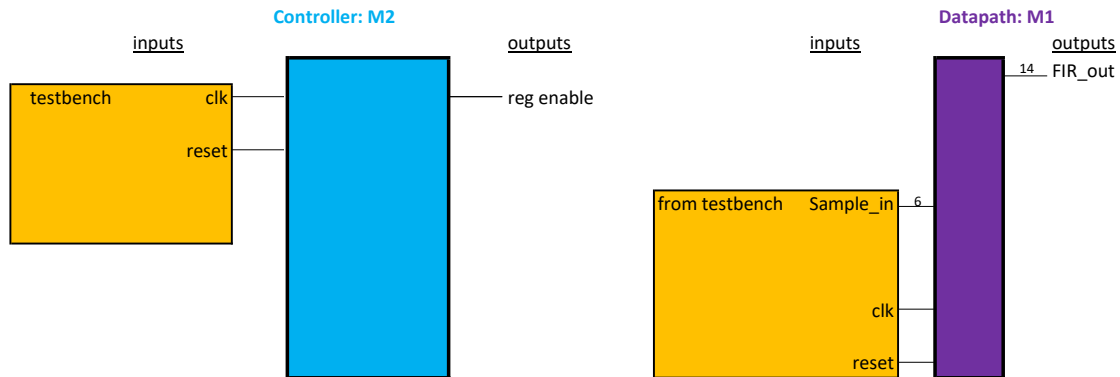
Design Methodology

A controller - datapath structure will be utilized with a reduced number of states vs. a FSM design. The design also implements pipeline to reduce Hardware Idle time

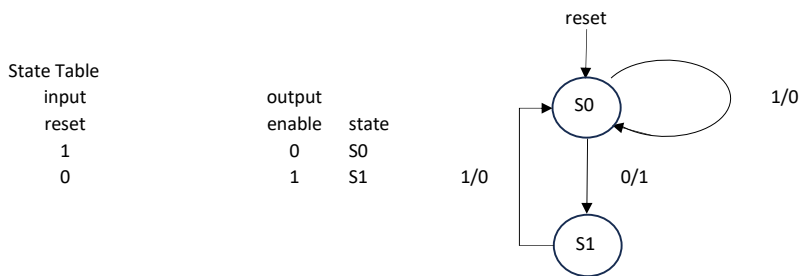
A block diagram and Finite State Machine (FSM) were developed from the Datapath in order to design the Controller code.

Ready was added as an output to the Datapath and as an input to the Controller.

Block Diagram



FSM (State Graph) for Controller



Building Blocks of the Datapath - RTL Viewer

