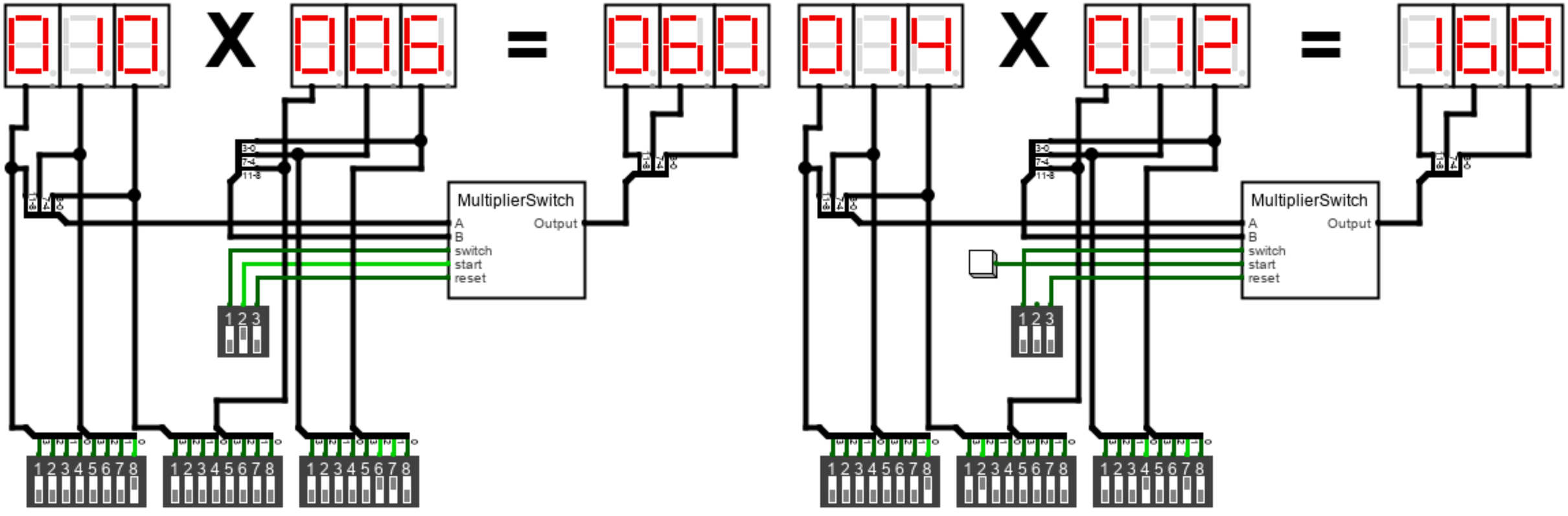
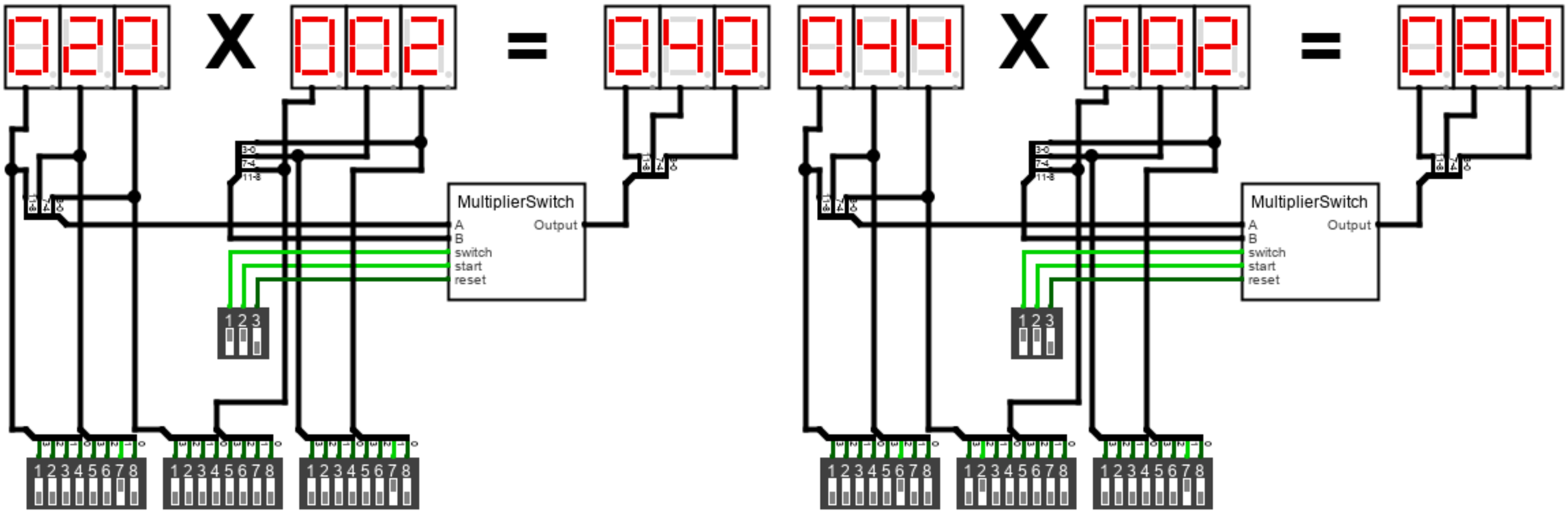
FSM Output



When the switch is set to 0, the FSM Multiplier will run after you then also click start. Then you just let the clock run until it is finished and spits out a result.

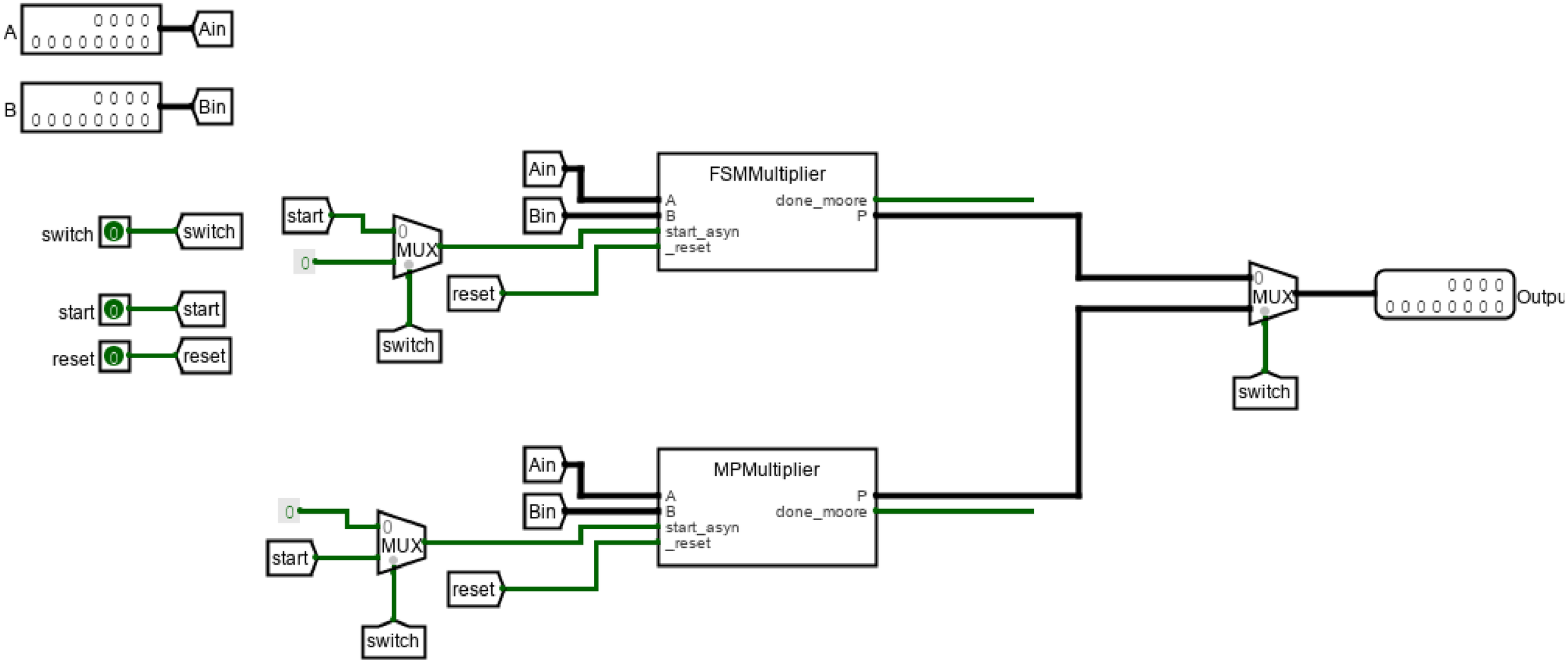
I also have a version of this with a button in the circ file and it works the same way, but you do have to hold it down for the FSM version.

MPM Output



When the switch is set to 1, the MDM Multiplier will run after you then also click start (but to get it to run correctly, you need to only let start be on for the first cycle). Then you just let the clock run until it is finished and spits out a result.

Multiplier Switch

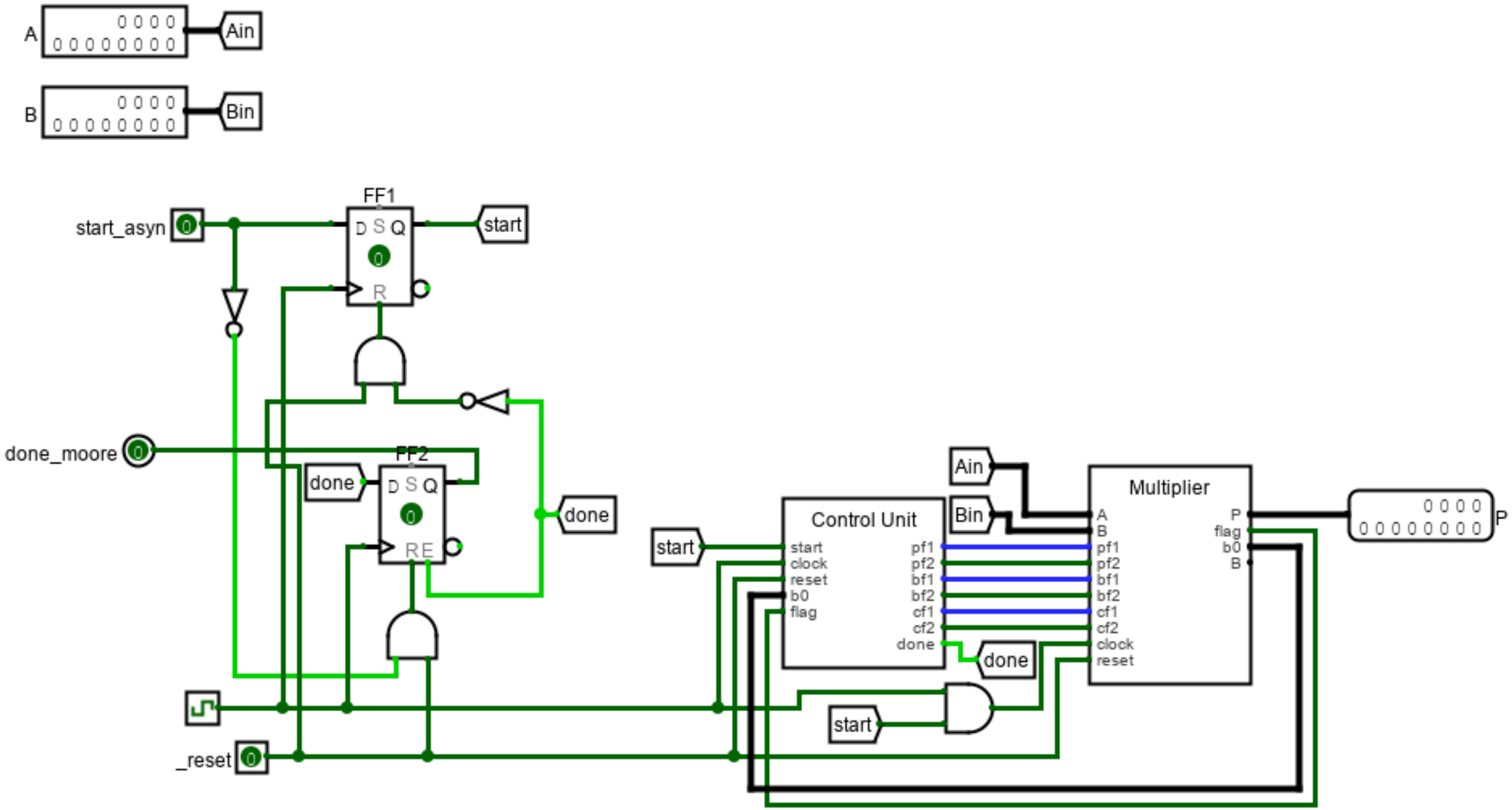


This is the circuit I used to swtch between the two different Multipliers. The particular Multiplier will only start if selected and the start button is turned on.

Multiplier

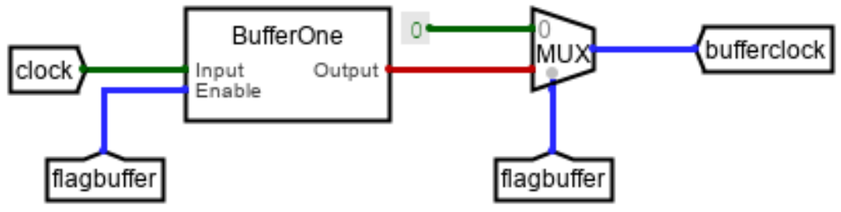
This is the multiplier I used for both types of multipliers. When the counter gets higher than the incoming B value, the flag shuts off.

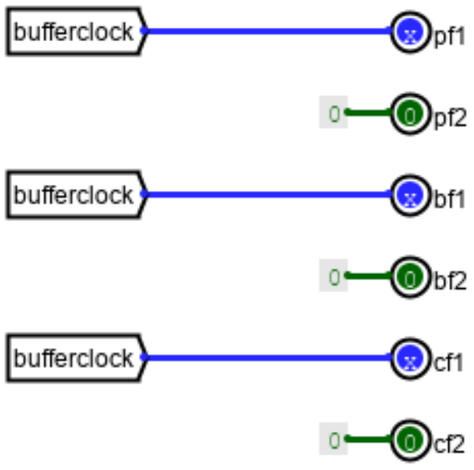
FSM Multiplier

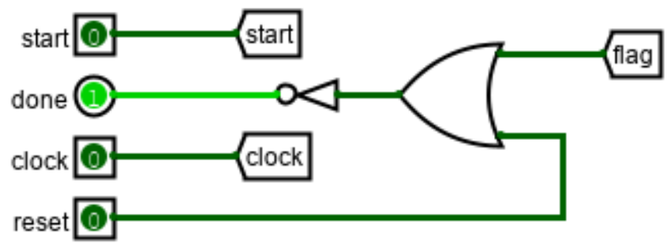


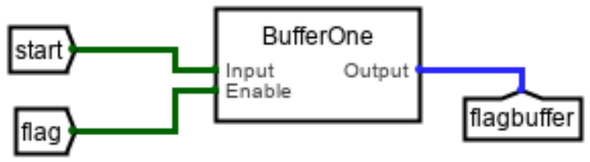
I built this part based on the schematic in the book. The only modification I made was an extra check for the clock being fed into the multiplier based on the Start switch being selected.

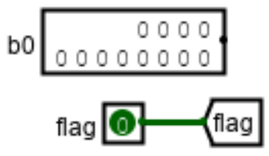
FSM Control Unit





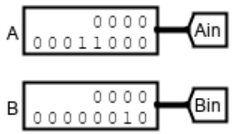


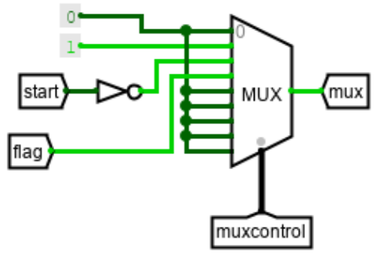


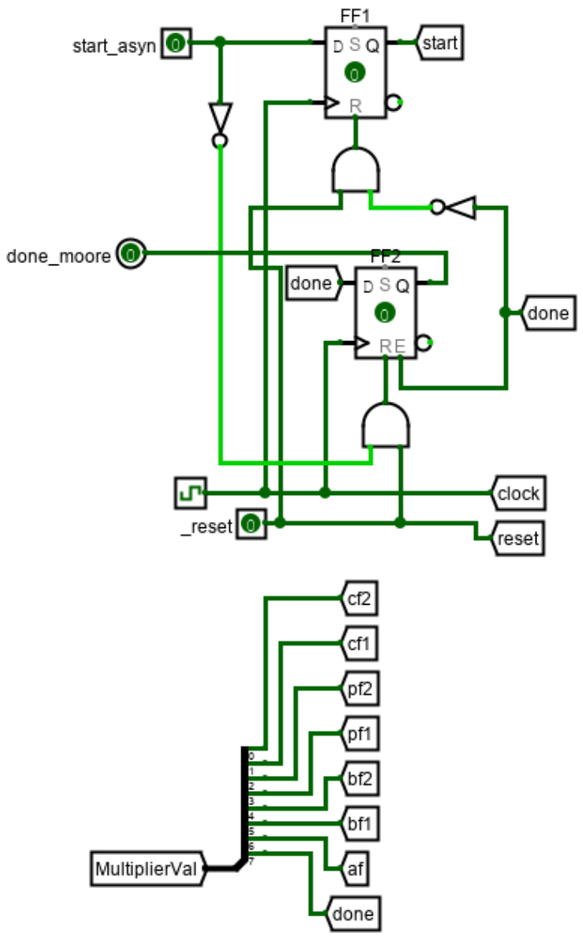


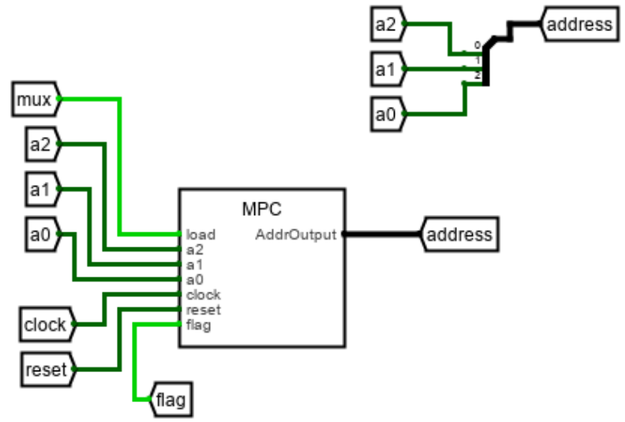
It works. I used basic custom built buffers mixed with a mux to control the circuit being shut off when the flag goes to 0.

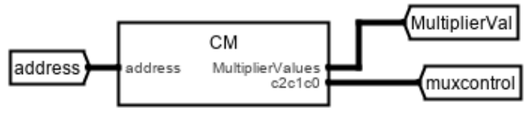
MPM Multiplier

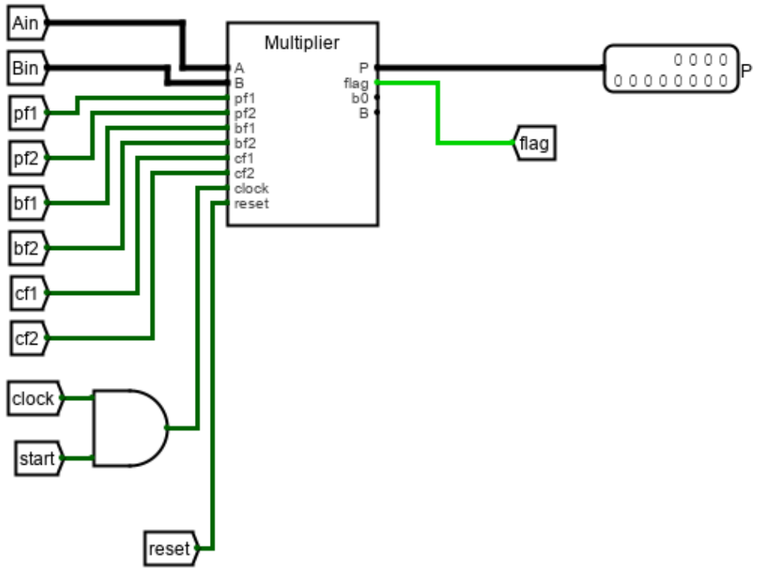






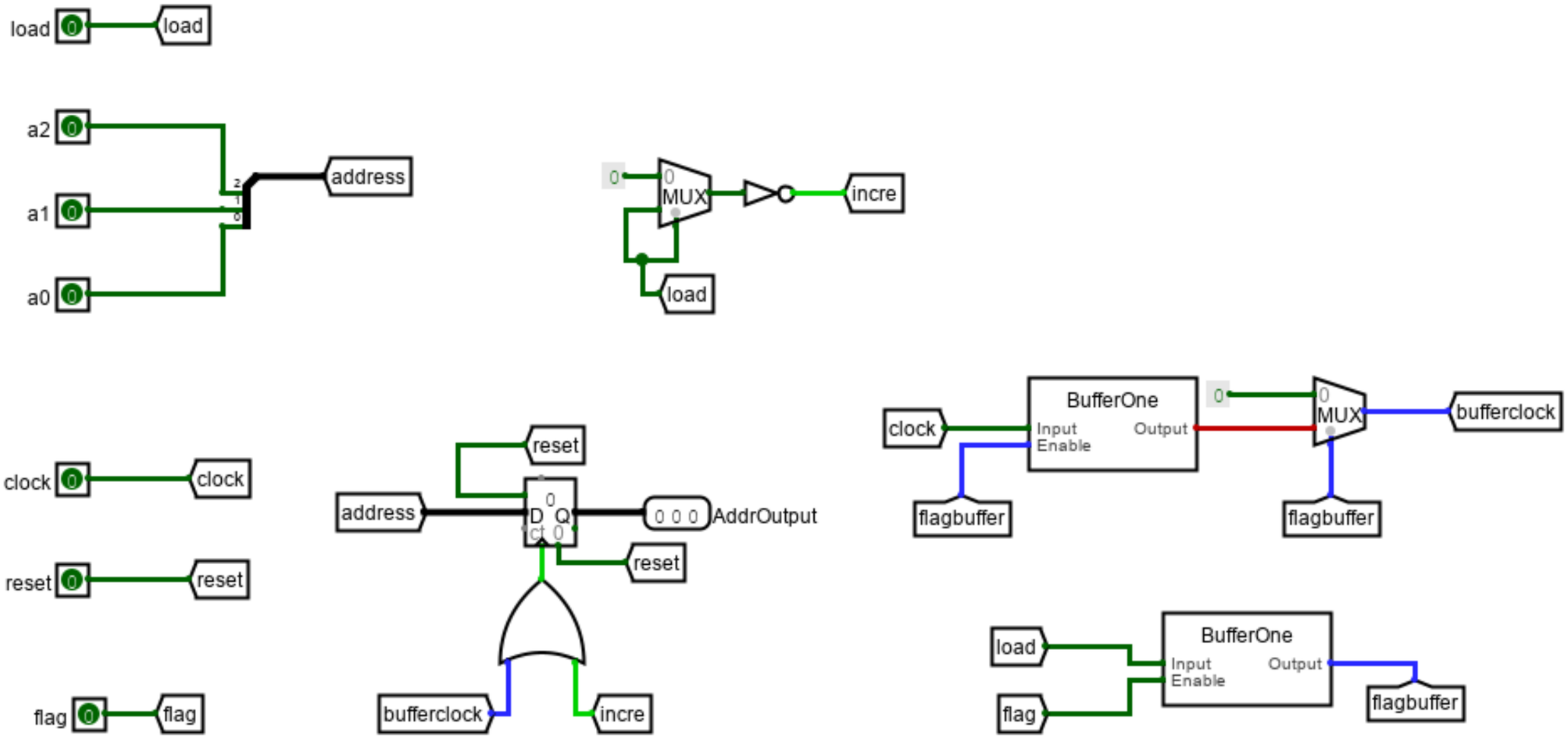






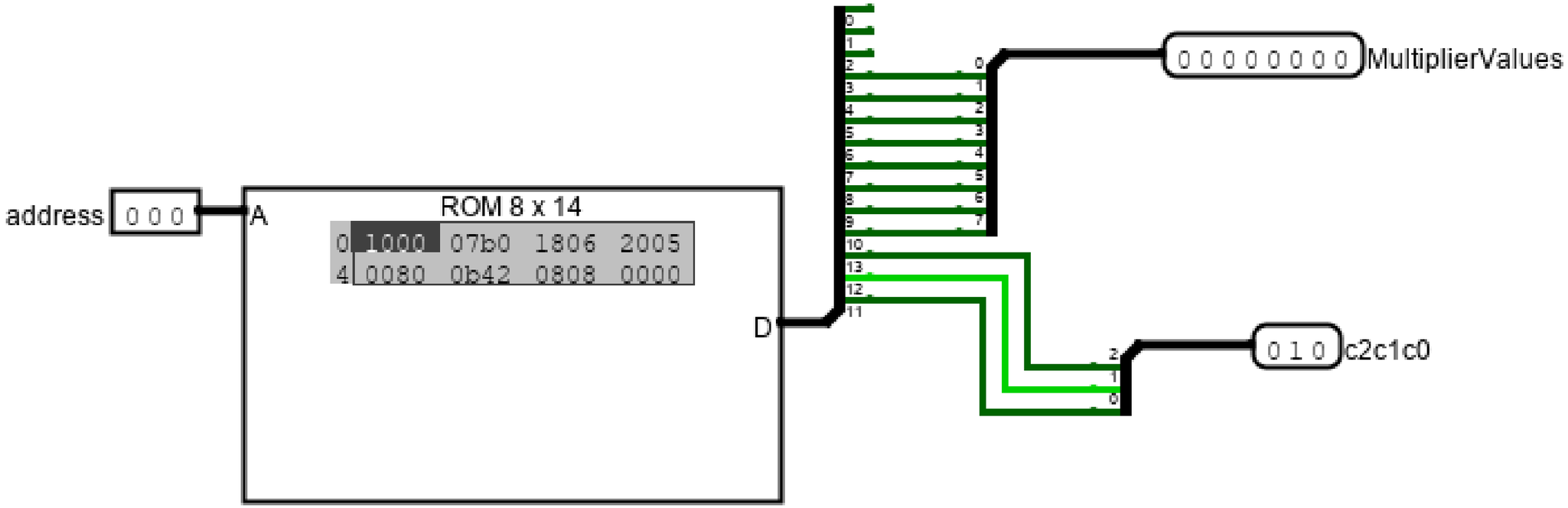
Here is my MPM Multiplier design.

MPC



Here is the MPC of my MPM Multiplier.

CM



Finally, here is the CM of my MPM Multiplier
using the codes from the book