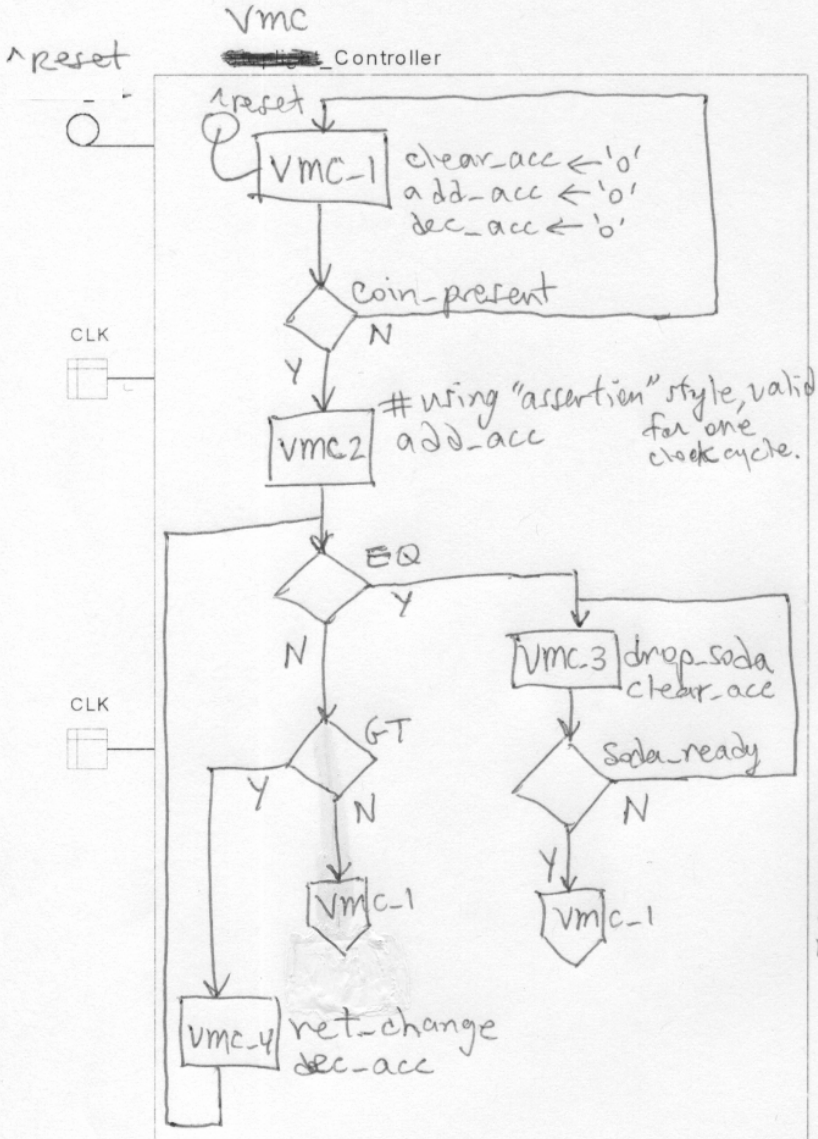
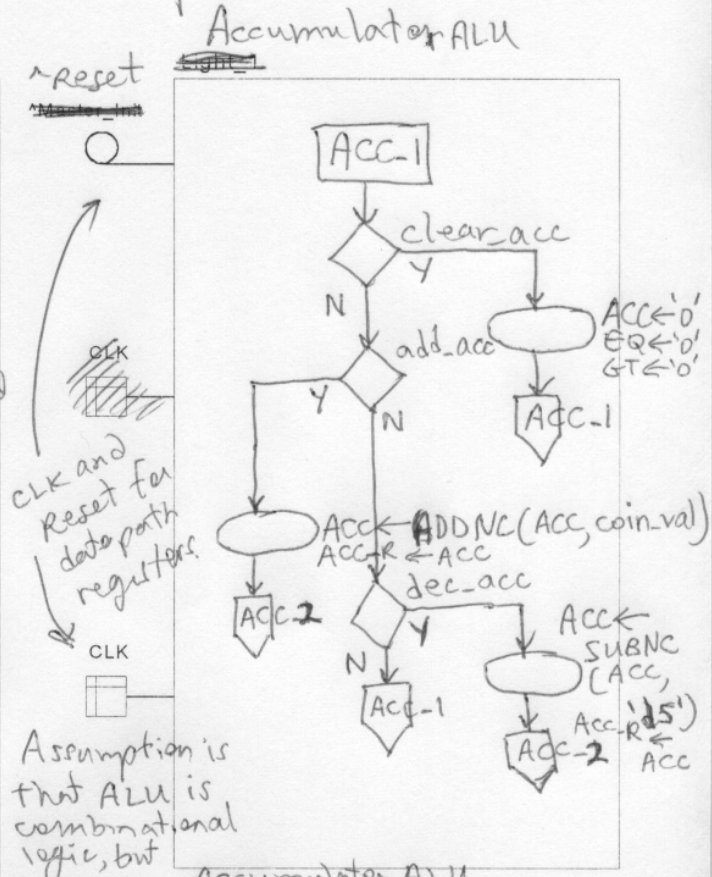
Vending Machine Controller:

Bus	Element	Size	Type	Def. Val.
Acc	wire	8	Bin.	0
Acc_R	Register	8	Bin.	0

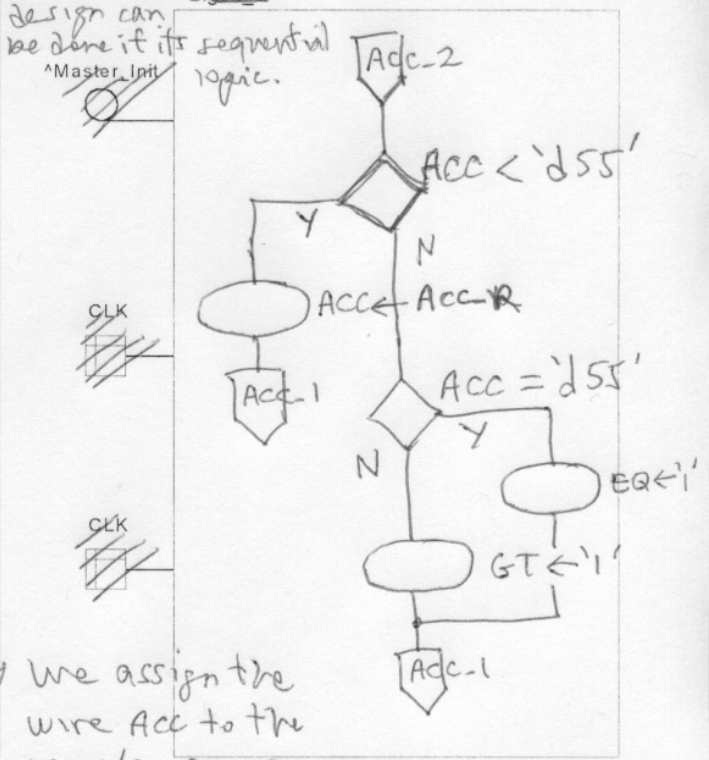


The timing is pretty tight on this version, since the ALU is a combinational logic circuit, and we define the vmc thread to be a Moore machine -- everything is gated with the clock.

We assume the clock speed is sufficiently faster than a human can drop coins into the Coin Receiver unit, but not to fast where we can't control electromechanical parts in other blocks of the Drink machine.



Assumption is that ALU is combinational logic, but an easier design can be done if it's sequential logic.



We assign the wire Acc to the register Acc_R, then, if we don't yet have 55¢ deposited, we assign the register back to the wire, which would happen on next clock, ie next pass.