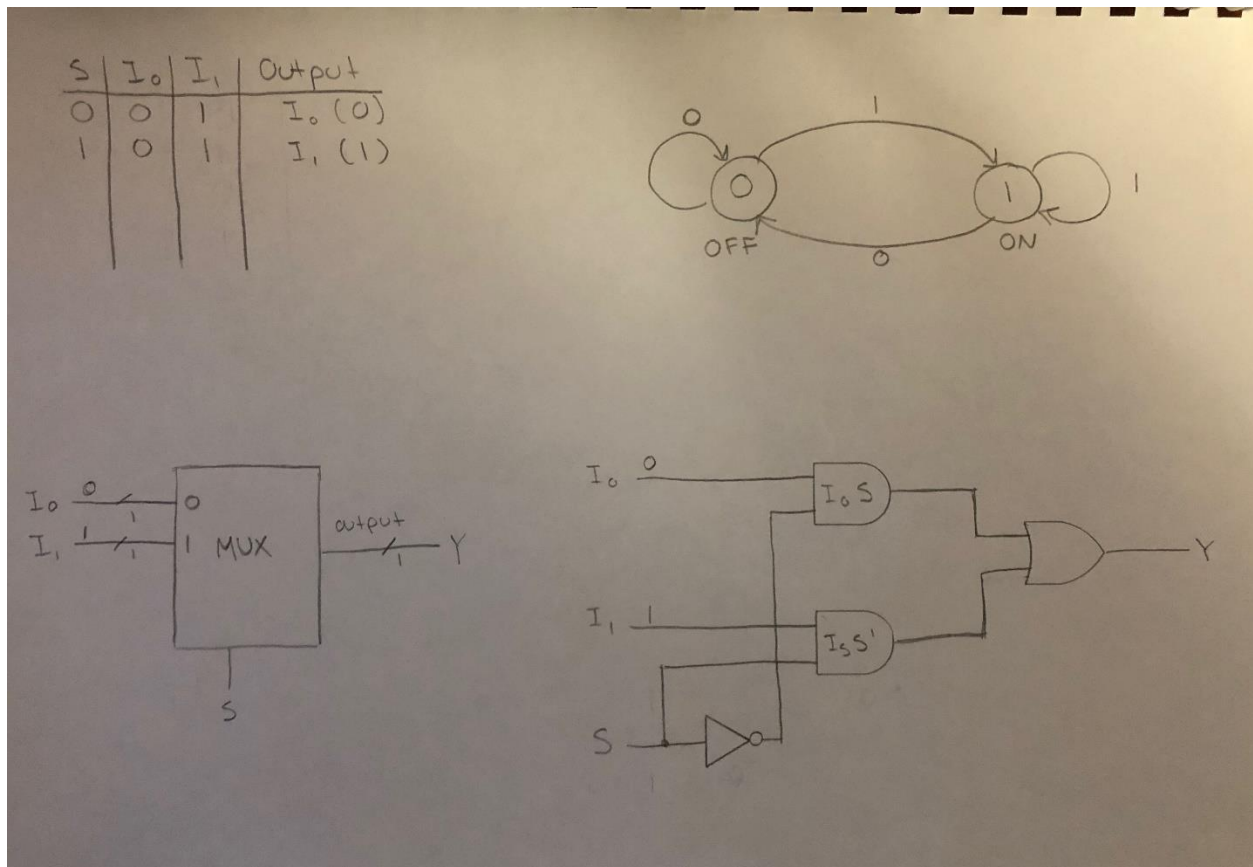
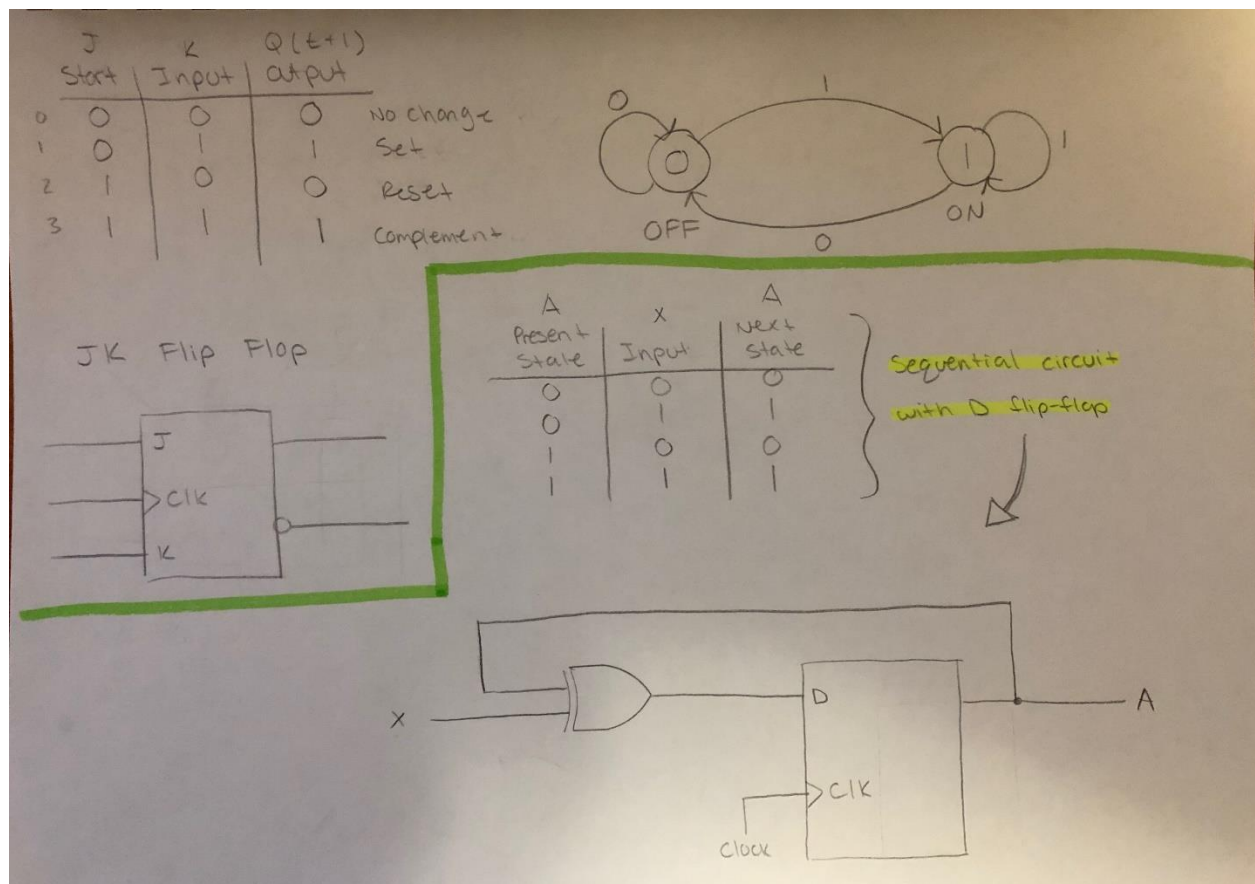


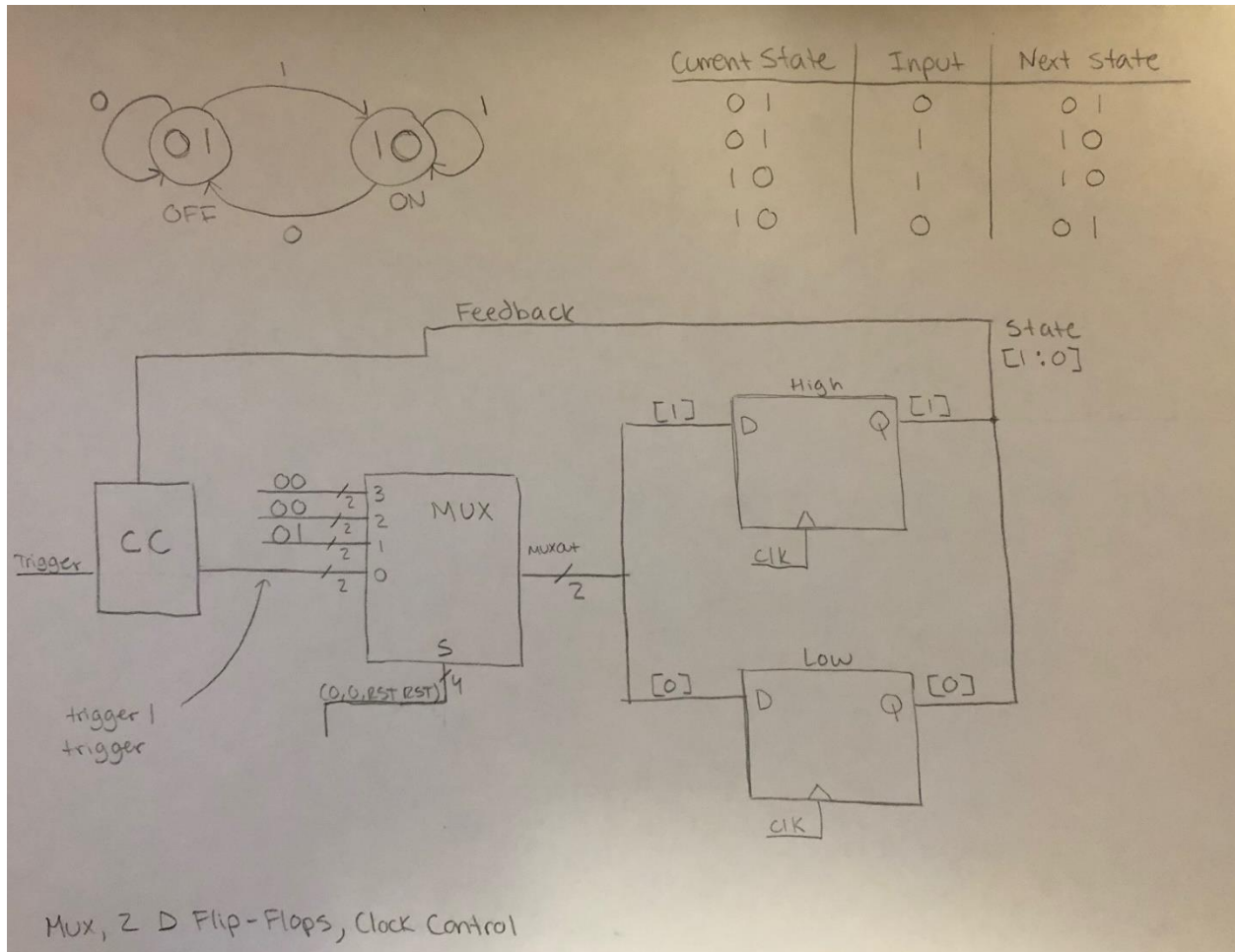
My initial thoughts to use a Mux for a Light Switch/turning the Lightsaber On/Off



My thoughts to use a JK flip-flop or D flip-flop for a Light Switch/turning the Lightsaber On/Off

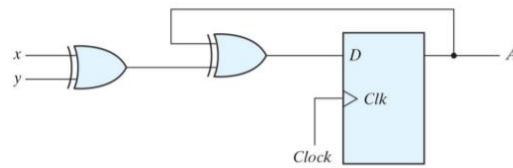


What Dr. Becker demonstrated in class for a Light Switch; came with sample Verilog code



What Dr. Becker had in his slides for a Light Switch

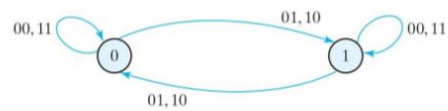
## Sequential circuit with D flip-flop.



(a) Circuit diagram

Present state	Inputs		Next state
$A$	$x$	$y$	$A$
0	0	0	0
0	0	1	1
0	1	0	1
0	1	1	0
1	0	0	1
1	0	1	0
1	1	0	0
1	1	1	1

(b) State table



(c) State diagram

Turning the lightsaber on and off is the same as a light switch.