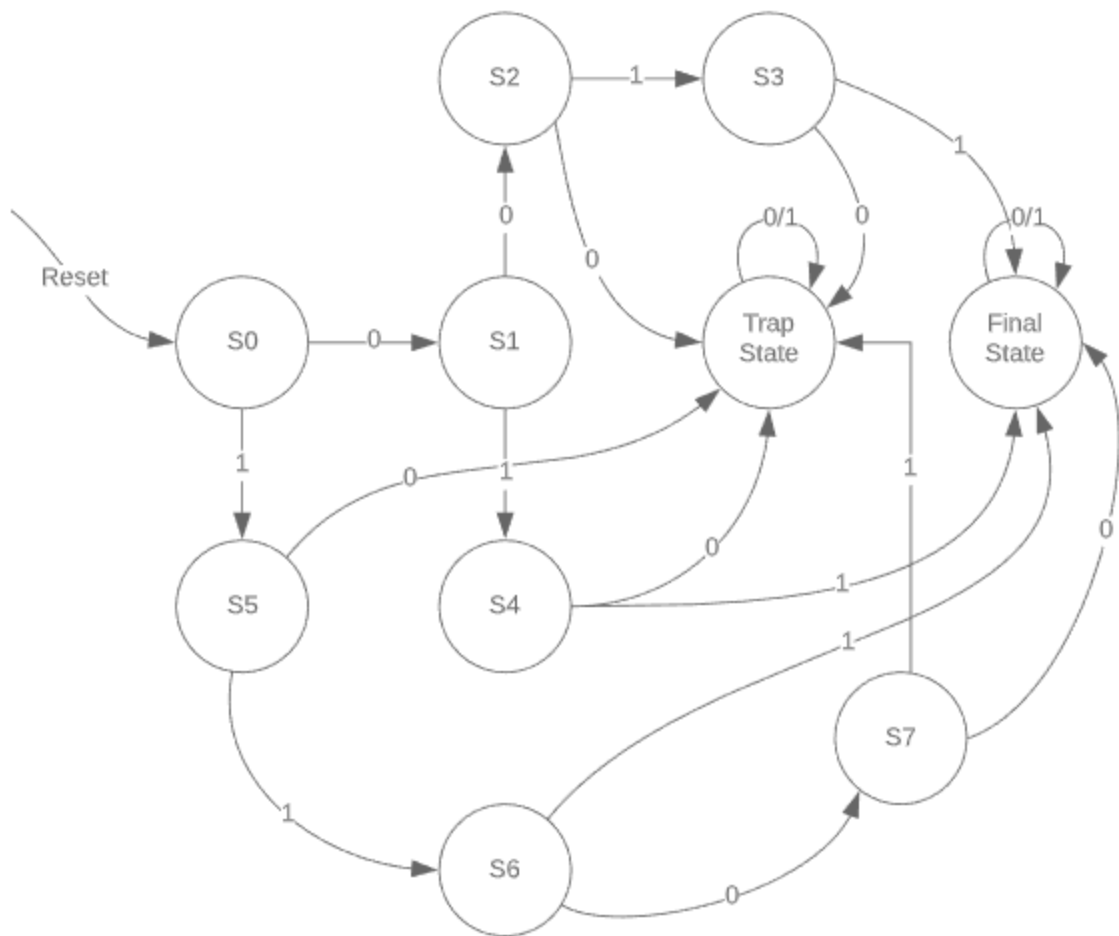


State Transition Diagram

Sadig Akhund | December 13, 2019



Initial State	Encoded Initial State	Input	Encoded Next State	Next State	Output
	S3S2S1S0	K3K2K1K0	S'3S'2S'1S'0		
S0	0000	0XXX	0001	S'1	0
S0	0000	1XXX	0101	S'5	0
S1	0001	00XX	0010	S'2	0
S1	0001	01XX	0100	S'4	0
S2	0010	001X	0011	S'3	0
S2	0010	000X	1000	Trap State	0
S3	0011	0011	1001	Final State	1
S3	0011	0010	1000	Trap State	0
S4	0100	010X	1000	Trap State	0
S4	0100	011X	1001	Final State	1
S5	0101	10XX	1000	Trap State	0
S5	0101	11XX	0110	S'6	0
S6	0110	110X	0111	S'7	0
S6	0110	111X	1001	Final State	1
S7	0111	1100	1001	Final State	1
S7	0111	1101	1000	Trap State	0
Trap State	1000	XXXX	1000	Trap State	0
Final State	1001	XXXX	1001	Final State	1