

Sensor Detector:

Sensor 4	Sensor 3	Sensor 2	Sensor 1	Output
0	0	0	0	0
0	0	0	1	1
0	0	1	0	0
0	0	1	1	1
0	1	0	0	0
0	1	0	1	1
0	1	1	0	1
0	1	1	1	1
1	0	0	0	0
1	0	0	1	1
1	0	1	0	1
1	0	1	1	1
1	1	0	0	0
1	1	0	1	1
1	1	1	0	1
1	1	1	1	1

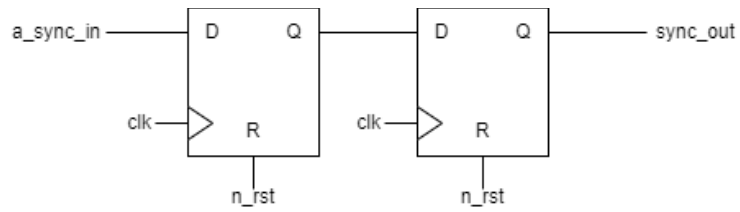
S_4S_3

S_2S_1

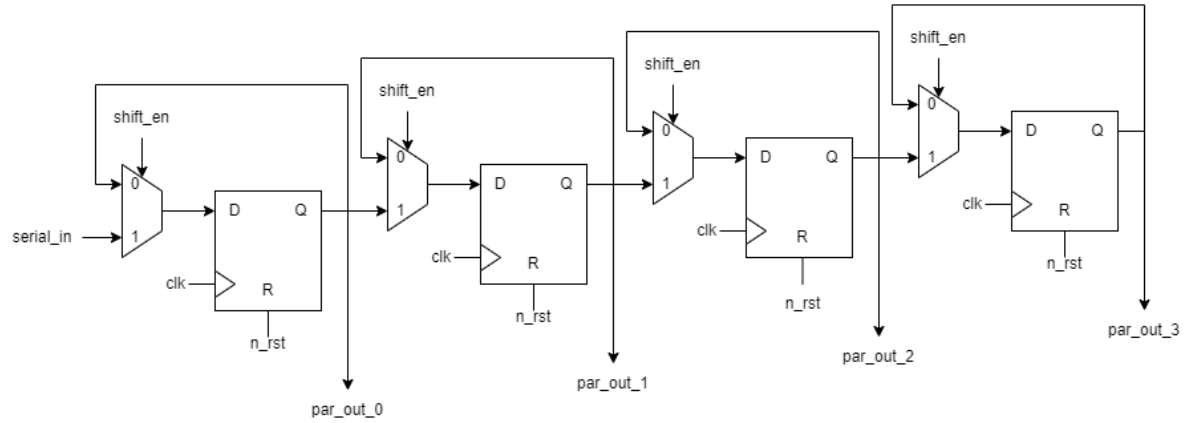
	00	01	11	10
00	0	0	0	0
01	1	1	1	1
11	1	1	1	1
10	0	1	1	1

$S_1 + S_3S_2 + S_4S_2$

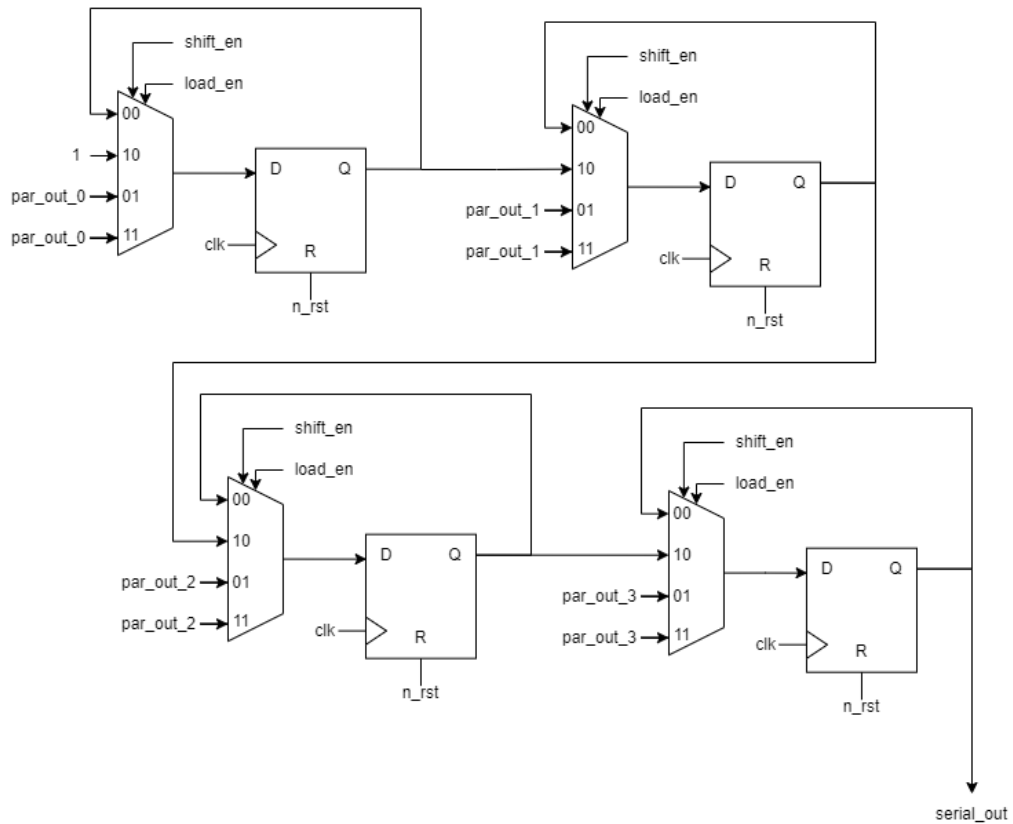
2 Flip-Flop Synchronizer:



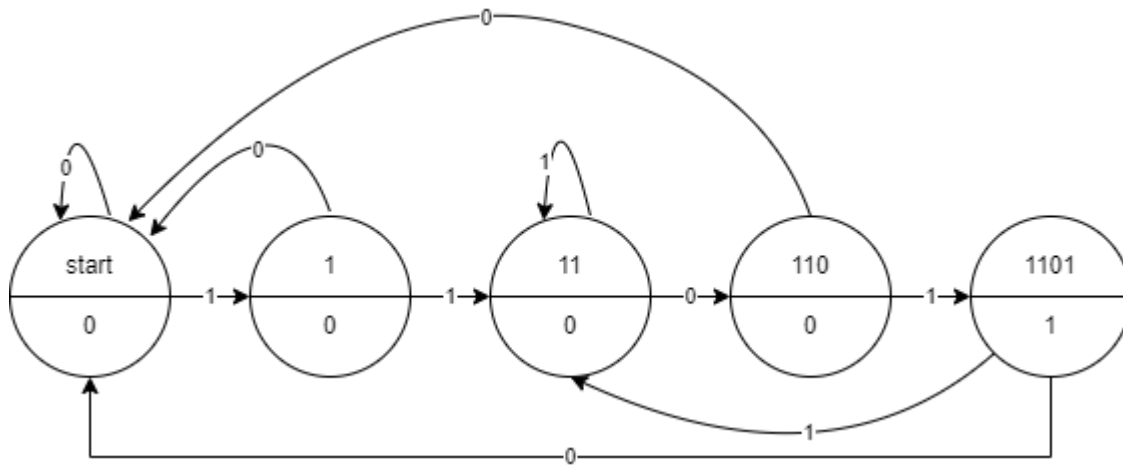
MSB 4-Bit Serial to Parallel Shift Register:



MSB 4-Bit Parallel to Serial Shift Register:



1101 Moore:



1101 Mealy:

