

Figure 1: State machine at position 1

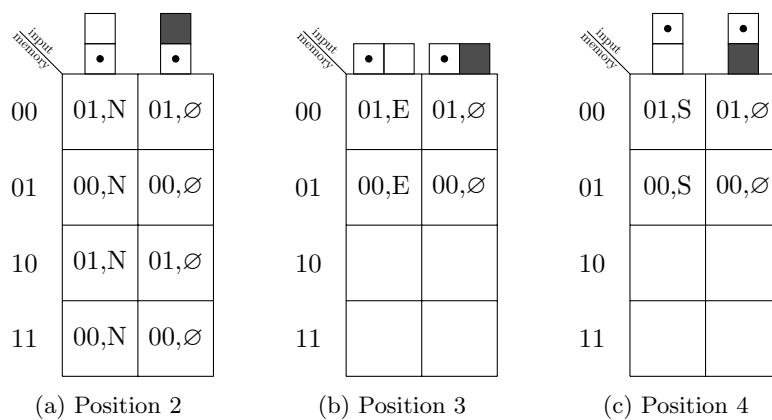


Figure 2: State machines (a) at position 2, (b) at position 3, (c) at position 4

Figure 3 consists of two state transition tables for position 5. Each table has four rows (00, 01, 10, 11) and eight columns. The first column is labeled "input memory".

Table 1:

00	11,W	11,W	11,W	01, \emptyset	01, \emptyset	01, \emptyset	01, \emptyset	11, \emptyset
01	10,W	10,W	10,W	10,W	10,W	10,W	00, \emptyset	10, \emptyset
10	11,W	11,N	11, \emptyset	01, \emptyset	11,N	11, \emptyset	01, \emptyset	11, \emptyset
11	10,W	10,N	10,N	00, \emptyset	10,N	10,N	10, \emptyset	10, \emptyset

Table 2:

00	01, \emptyset	01, \emptyset	11, \emptyset	11, \emptyset	11,W	11,W	01, \emptyset	01, \emptyset
01	00, \emptyset	00, \emptyset	00, \emptyset	10, \emptyset	10,W	10,W	00, \emptyset	00, \emptyset
10	11, \emptyset	11,N	11, \emptyset	11,N	11,W	11,W	01, \emptyset	01, \emptyset
11	10,N	10,N	10,N	10,N	10,W	10,W	00, \emptyset	00, \emptyset

Figure 3: State machine at position 5

Figure 4 consists of three state transition tables labeled (a), (b), and (c) for positions 6, 7, and 8 respectively. Each table has five rows (00, 01, 10, 11, 11) and two columns.

(a) Position 6:

00	01,N	01, \emptyset
01	00,N	00, \emptyset
10		
11		

(b) Position 7:

00	01,E	01, \emptyset
01	00,E	00, \emptyset
10		
11		

(c) Position 8:

00	01,S	01, \emptyset
01	00,S	00, \emptyset
10		
11		

Figure 4: State machines (a) at position 6, (b) at position 7, (c) at position 8

Figure 5 displays two state machines at position 9. Each machine consists of 8 states, represented by 4x2 grids of symbols. The top row of each grid is labeled "input memory". The bottom row shows state transitions for inputs 00, 01, 10, and 11.

Top State Machine:

00	01, \emptyset	11, \emptyset	01, \emptyset	11, \emptyset	01, S	01, S	01, S	01, S
01	00, \emptyset							
10	11, \emptyset	11, \emptyset	01, \emptyset	11, N	01, \emptyset	11, \emptyset	01, \emptyset	11, N
11	10, \emptyset	10, N	00, \emptyset	10, N	00, \emptyset	10, N	00, \emptyset	10, N

Bottom State Machine:

00	01, S	01, S						
01	00, \emptyset	00, S	00, S					
10	01, \emptyset	11, \emptyset	01, \emptyset	11, N	01, \emptyset	11, \emptyset	01, \emptyset	11, N
11	00, \emptyset	10, N	00, \emptyset	10, N	00, \emptyset	10, N	00, \emptyset	10, N

Figure 5: State machine at position 9