

Figure 1: State machine at position 1

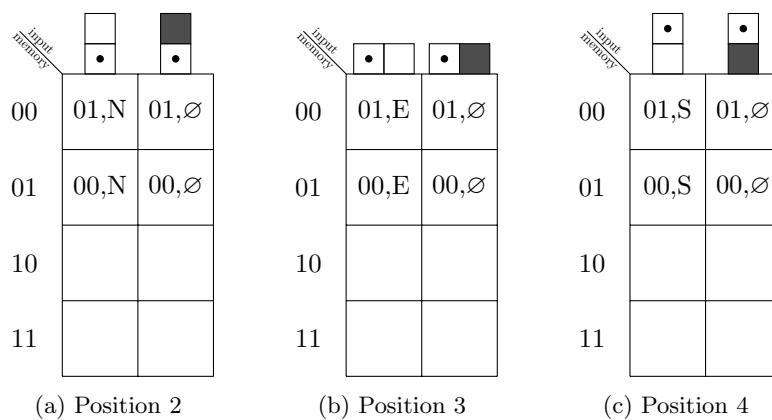


Figure 2: State machines (a) at position 2, (b) at position 3, (c) at position 4

Figure 3 consists of two tables representing state machines at position 5. The tables have 8 rows (00 to 11) and 8 columns. The first column is labeled "input memory".

Table 1 (Position 5):

| input memory | ? | • | • | ? | • | • | ? | • |
|--------------|------|------|------|------|------|------|------|------|
| 00 | 11,∅ | 01,∅ | 01,∅ | 11,∅ | 01,∅ | 01,∅ | 11,∅ | 01,∅ |
| 01 | 00,W | 00,N | 00,N | 10,∅ | 00,N | 00,N | 00,∅ | 00,∅ |
| 10 | 11,∅ | 11,∅ | 11,∅ | 11,∅ | 11,∅ | 11,∅ | 11,∅ | 01,∅ |
| 11 | 00,W | 00,W | 00,W | 00,W | 00,W | 00,W | 10,∅ | 00,∅ |

Table 2 (Position 6):

| input memory | ? | • | • | ? | • | • | ? | • |
|--------------|------|------|------|------|------|------|------|------|
| 00 | 01,∅ | 01,∅ | 01,∅ | 01,∅ | 11,∅ | 11,∅ | 11,∅ | 11,∅ |
| 01 | 00,N | 00,N | 00,N | 00,N | 00,W | 00,W | 10,∅ | 10,∅ |
| 10 | 11,∅ | 11,∅ | 01,∅ | 01,∅ | 11,∅ | 11,∅ | 11,∅ | 11,∅ |
| 11 | 10,∅ | 10,∅ | 10,∅ | 00,∅ | 00,W | 00,W | 10,∅ | 10,∅ |

Figure 3: State machine at position 5

Figure 4 consists of three tables representing state machines at positions 6, 7, and 8. Each table has 5 rows (00 to 11) and 2 columns. The first column is labeled "input memory".

(a) Position 6:

| input memory | ? | • |
|--------------|------|------|
| 00 | 01,N | 01,∅ |
| 01 | 00,N | 00,∅ |
| 10 | | |
| 11 | | |

(b) Position 7:

| input memory | • | • | • |
|--------------|------|------|---|
| 00 | 01,E | 01,∅ | |
| 01 | 00,E | 00,∅ | |
| 10 | | | |
| 11 | | | |

(c) Position 8:

| input memory | • | • |
|--------------|------|------|
| 00 | 01,S | 01,∅ |
| 01 | 00,S | 00,∅ |
| 10 | | |
| 11 | | |

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

input memory

| | | | | | | | | |
|----|------|------|------|------|------|------|------|------|
| | | | | | | | | |
| 00 | 01,∅ | 01,∅ | 11,∅ | 01,∅ | 11,∅ | 01,∅ | 11,∅ | 01,∅ |
| 01 | 00,∅ | 00,N | 10,∅ | 00,N | 10,∅ | 00,N | 10,∅ | 00,N |
| 10 | 11,∅ | 01,∅ | 11,∅ | 01,∅ | 11,S | 11,S | 11,S | 11,S |
| 11 | 10,∅ | 10,∅ | 10,∅ | 10,∅ | 10,∅ | 10,∅ | 10,∅ | 10,∅ |

| | | | | | | | | |
|----|------|------|------|------|------|------|------|------|
| | | | | | | | | |
| 00 | 11,∅ | 01,∅ | 11,∅ | 01,∅ | 11,∅ | 01,∅ | 11,∅ | 01,∅ |
| 01 | 10,∅ | 00,N | 10,∅ | 00,N | 10,∅ | 00,N | 10,∅ | 00,N |
| 10 | 11,S |
| 11 | 10,∅ | 10,∅ | 10,∅ | 10,∅ | 10,∅ | 10,∅ | 10,∅ | 10,∅ |

Figure 5: State machine at position 9