

| | | Input memory | |
|-----|------------------|------------------|---|
| | | X | X |
| | | • | • |
| 000 | 001, \emptyset | 001, \emptyset | |
| 001 | 110, W | 010, \emptyset | |
| 010 | 011, \emptyset | 011, \emptyset | |
| 011 | 100, W | 000, \emptyset | |
| 100 | 001, \emptyset | 101, \emptyset | |
| 101 | 010, \emptyset | 110, \emptyset | |
| 110 | 111, \emptyset | 111, \emptyset | |
| 111 | 100, \emptyset | 100, \emptyset | |

(a) Position 1

| | | Input memory | |
|-----|------------------|------------------|------------------|
| | | X | X |
| | | • | • |
| 000 | 001, \emptyset | 001, \emptyset | 101, \emptyset |
| 001 | 110, W | 110, W | 010, \emptyset |
| 010 | 011, \emptyset | 011, \emptyset | 011, \emptyset |
| 011 | 000, \emptyset | 000, \emptyset | 000, \emptyset |
| 100 | 101, \emptyset | 001, \emptyset | 101, \emptyset |
| 101 | 110, N | 010, \emptyset | 110, N |
| 110 | 111, \emptyset | 111, \emptyset | 111, \emptyset |
| 111 | 100, \emptyset | 100, \emptyset | 100, \emptyset |

(b) Position 5

Figure 1: State machine(s) (a) at position 1, (b) at position 5.

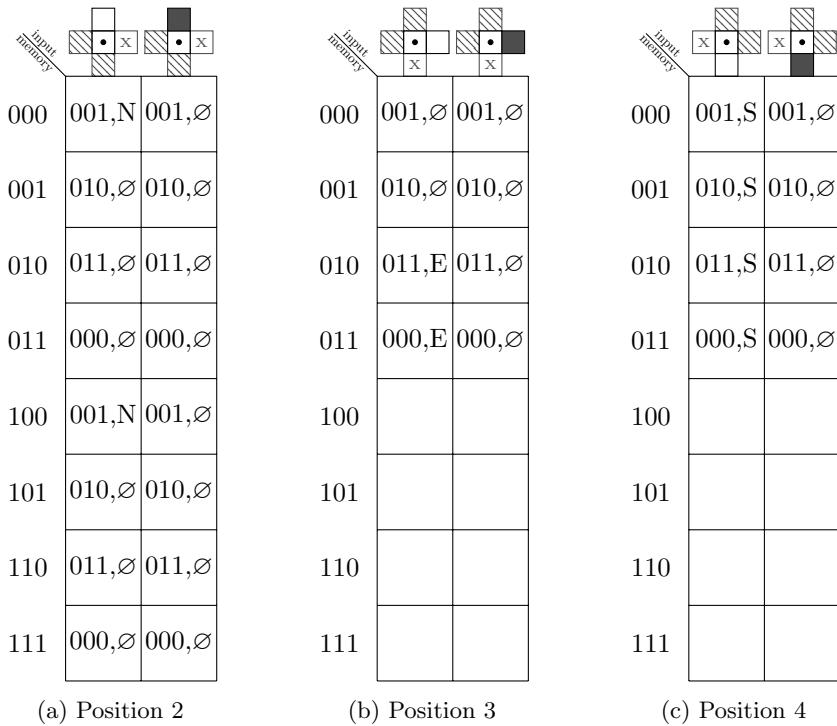


Figure 2: State machine(s) (a) at position 2, (b) at position 3, (c) at position 4.

| | | input memory | |
|-----|------------------|------------------|---|
| | | • | x |
| | | x | • |
| 000 | 001,N | 001, \emptyset | |
| 001 | 010, \emptyset | 010, \emptyset | |
| 010 | 011, \emptyset | 011, \emptyset | |
| 011 | 000, \emptyset | 000, \emptyset | |
| 100 | 001,N | 001, \emptyset | |
| 101 | 010, \emptyset | 010, \emptyset | |
| 110 | 011, \emptyset | 011, \emptyset | |
| 111 | 000, \emptyset | 000, \emptyset | |

(a) Position 6

| | | input memory | |
|-----|------------------|------------------|------------------|
| | | • | x |
| | | x | • |
| 000 | 001,E | 001,E | 001, \emptyset |
| 001 | 010, \emptyset | 010, \emptyset | 010, \emptyset |
| 010 | 011,E | 011,E | 011, \emptyset |
| 011 | 000,E | 000,E | 000, \emptyset |
| 100 | 001, \emptyset | 001, \emptyset | 001, \emptyset |
| 101 | 010, \emptyset | 010, \emptyset | 010, \emptyset |
| 110 | 011,S | 011, \emptyset | 011,S |
| 111 | 000, \emptyset | 000, \emptyset | 000, \emptyset |

(b) Position 7

Figure 3: State machine(s) (a) at position 6, (b) at position 7.

| | | Input history | | | |
|-----|-------|------------------|-------|------------------|---|
| | | X | X | X | X |
| | | • | • | • | • |
| 000 | 001,S | 001, \emptyset | 001,S | 001, \emptyset | |
| 001 | 010,S | 010, \emptyset | 010,S | 010, \emptyset | |
| 010 | 011,S | 011, \emptyset | 011,S | 011, \emptyset | |
| 011 | 100,W | 100,W | 000,S | 000, \emptyset | |
| 100 | | | | | |
| 101 | | | | | |
| 110 | | | | | |
| 111 | | | | | |

(a) Position 8

| | | Input history | | | |
|-----|------------------|------------------|------------------|------------------|---|
| | | X | X | X | X |
| | | • | • | • | • |
| 000 | 001,S | 101, \emptyset | 001,S | 001, \emptyset | |
| 001 | 010, \emptyset | 010, \emptyset | 010, \emptyset | 010, \emptyset | |
| 010 | 011, \emptyset | 011, \emptyset | 011, \emptyset | 011, \emptyset | |
| 011 | 000, \emptyset | 000, \emptyset | 000, \emptyset | 000, \emptyset | |
| 100 | 101, \emptyset | 101, \emptyset | 101, \emptyset | 101, \emptyset | |
| 101 | 110,N | 110,N | 010, \emptyset | 110, \emptyset | |
| 110 | 111, \emptyset | 111, \emptyset | 111, \emptyset | 111, \emptyset | |
| 111 | 100, \emptyset | 100, \emptyset | 100, \emptyset | 100, \emptyset | |

(b) Position 9

Figure 4: State machine(s) (a) at position 8, (b) at position 9.