

| <i>input</i> | memory | |
|--------------|------------------|------------------|
| 000 | 001, \emptyset | 001, \emptyset |
| 001 | 010, \emptyset | 010, \emptyset |
| 010 | 011, \emptyset | 011, \emptyset |
| 011 | 100, W | 000, \emptyset |
| 100 | | |
| 101 | | |
| 110 | | |
| 111 | | |

Figure 1: State machine at position 1

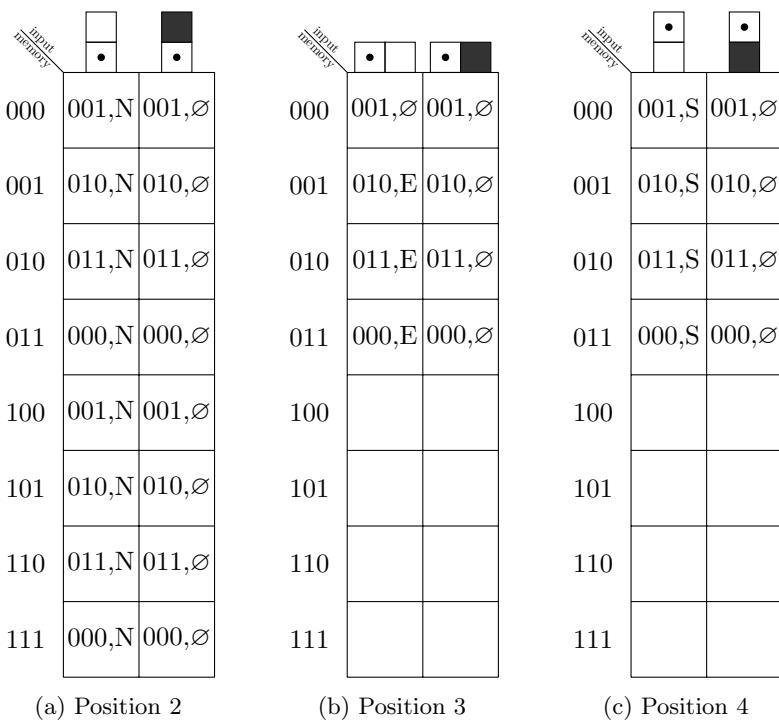


Figure 2: State machines (a) at position 2, (b) at position 3, (c) at position 4

| <i>input memory</i> | 001 | 001 | 101 | 001 |
|---------------------|------------------|------------------|------------------|------------------|
| 000 | 001, \emptyset | 001, \emptyset | 101, \emptyset | 001, \emptyset |
| 001 | 010, \emptyset | 010, \emptyset | 010, \emptyset | 010, \emptyset |
| 010 | 011, \emptyset | 011, \emptyset | 011, \emptyset | 011, \emptyset |
| 011 | 100, W | 100, W | 000, \emptyset | 000, \emptyset |
| 100 | 101, N | 101, \emptyset | 101, N | 101, \emptyset |
| 101 | 110, \emptyset | 010, \emptyset | 110, \emptyset | 110, \emptyset |
| 110 | 111, \emptyset | 111, \emptyset | 111, \emptyset | 111, \emptyset |
| 111 | 100, \emptyset | 100, \emptyset | 100, \emptyset | 100, \emptyset |

Figure 3: State machine at position 5

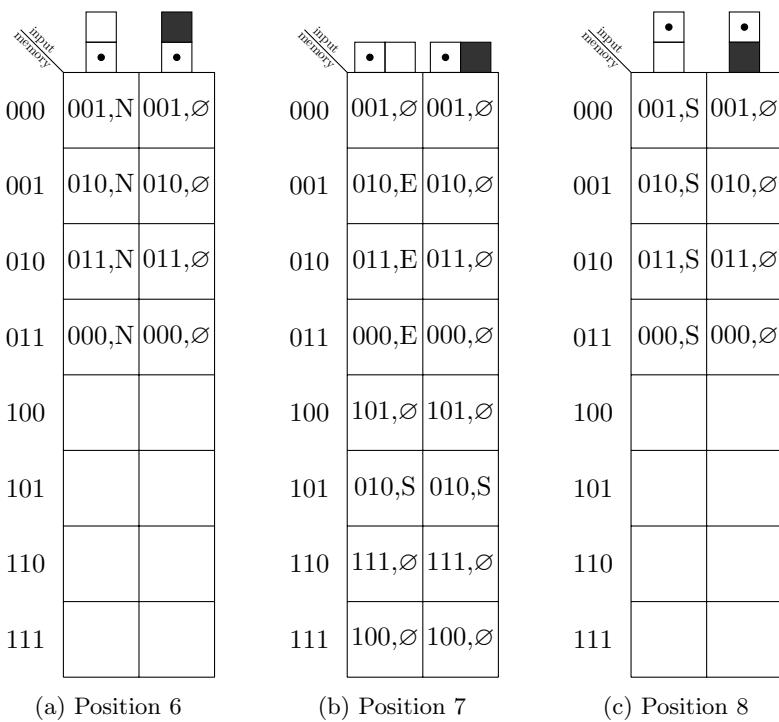


Figure 4: State machines (a) at position 6, (b) at position 7, (c) at position 8

| | 001, \emptyset | 101, \emptyset | 001, \emptyset | 001, \emptyset |
|-----|------------------|------------------|------------------|------------------|
| 000 | 001, \emptyset | 101, \emptyset | 001, \emptyset | 001, \emptyset |
| 001 | 010, S | 010, \emptyset | 010, S | 010, \emptyset |
| 010 | 011, \emptyset | 011, \emptyset | 011, \emptyset | 011, \emptyset |
| 011 | 000, \emptyset | 000, \emptyset | 000, \emptyset | 000, \emptyset |
| 100 | 101, N | 101, N | 001, \emptyset | 101, \emptyset |
| 101 | 110, \emptyset | 110, \emptyset | 110, \emptyset | 110, \emptyset |
| 110 | 111, \emptyset | 111, \emptyset | 111, \emptyset | 111, \emptyset |
| 111 | 100, \emptyset | 100, \emptyset | 100, \emptyset | 100, \emptyset |

Figure 5: State machine at position 9