

		input memory	
		X	X
		•	•
000	001,∅	001,∅	
001	010,∅	010,∅	
010	011,∅	011,∅	
011	000,N	000,∅	
100	101,∅	001,∅	
101	110,∅	010,∅	
110	111,∅	011,∅	
111	000,∅	000,∅	

(a) Position 1

		input memory	
		•	•
		•	•
000	001,E	001,N	001,E
001	010,∅	010,∅	010,∅
010	011,E	011,∅	011,E
011	000,∅	000,∅	000,∅
100	001,E	001,∅	001,E
101	110,∅	110,∅	110,∅
110	011,E	111,∅	011,E
111	100,∅	100,∅	100,∅

(b) Position 2

		input memory	
		X	X
		•	•
000	001,∅	001,∅	
001	110,∅	110,∅	
010	011,∅	011,∅	
011	000,∅	000,∅	
100	101,∅	101,∅	
101	110,S	110,∅	
110	111,∅	111,∅	
111	100,∅	100,∅	

(c) Position 4

Figure 1: State machine(s) (a) at position 1, (b) at position 2, (c) at position 4.

	input history	101,E	101,E	001, \emptyset	001, \emptyset
000					
001	010, \emptyset	010, \emptyset	010, \emptyset	010, \emptyset	
010	111,E	111,E	111, \emptyset	111, \emptyset	
011	000, \emptyset	000, \emptyset	000, \emptyset	000, \emptyset	
100	101,E	101,E	101, \emptyset	101, \emptyset	
101	110, \emptyset	110, \emptyset	110, \emptyset	110, \emptyset	
110	111,E	111,E	111,S	111, \emptyset	
111	100, \emptyset	100, \emptyset	100, \emptyset	100, \emptyset	

(a) Position 3

	input history	001, \emptyset	001, \emptyset	001, \emptyset	001, \emptyset
000					
001	010, \emptyset	010, \emptyset	110, \emptyset	110, \emptyset	
010	011, \emptyset	011, \emptyset	011, \emptyset	011, \emptyset	
011	000,N	000,N	000, \emptyset	000, \emptyset	
100	101, \emptyset	101, \emptyset	101, \emptyset	101, \emptyset	
101	110,S	110, \emptyset	110,S	110, \emptyset	
110	111, \emptyset	111, \emptyset	111, \emptyset	111, \emptyset	
111	100, \emptyset	000, \emptyset	100, \emptyset	000, \emptyset	

(b) Position 8

Figure 2: State machine(s) (a) at position 3, (b) at position 8.

	•	•	•	•	•	•	•	
000	101,E	101,E	001,N	001,N	101,E	101,E	001, \emptyset	001, \emptyset
001	010, \emptyset							
010	011,E	011,E	011, \emptyset	011, \emptyset	011,E	011,E	111, \emptyset	111, \emptyset
011	000, \emptyset							
100	101,E	101,E	101, \emptyset	001, \emptyset	101,E	101,E	101, \emptyset	001, \emptyset
101	110, \emptyset							
110	011,E	011,E	111,S	111, \emptyset	011,E	011,E	111,S	111, \emptyset
111	100, \emptyset							

(a) Position 6

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