

	N	E	S	W
0	2, N			0, W
1				
2				3, Ø
3	3, Ø			3, Ø

(a) State Machine of agent at state 1

	N	E	S	W
0	1, N	1, Ø		
1	2, Ø	2, Ø		
2	3, N	3, E		
3	3, Ø	1, Ø		

(b) State Machine of agent at state 2

	N	E	S	W
0		1, Ø	1, Ø	
1		2, Ø	2, Ø	
2		3, E	3, S	
3		2, Ø	3, Ø	

(c) State Machine of agent at state 3

	N	E	S	W
0			2, Ø	0, Ø
1			2, Ø	
2			3, S	
3			3, S	3, Ø

(d) State Machine of agent at state 4

	N	E	S	W
0	0, N	1, Ø		0, W
1	2, Ø	2, Ø		1, Ø
2	3, N	3, E		2, Ø
3	3, Ø	2, Ø		3, Ø

(e) State Machine of agent at state 5

	N	E	S	W
0	0, N	2, Ø	1, Ø	
1	2, Ø	2, Ø	2, Ø	
2	3, N	2, Ø	3, S	
3	3, Ø	2, Ø	3, Ø	

(f) State Machine of agent at state 6

	N	E	S	W
0		1, Ø	1, Ø	0, Ø
1		2, Ø	2, Ø	1, Ø
2		3, E	3, S	2, Ø
3		2, Ø	3, Ø	3, Ø

(g) State Machine of agent at state 7

	N	E	S	W
0	1, N		2, Ø	0, Ø
1			2, Ø	
2			3, S	
3	3, Ø		3, S	3, Ø

(h) State Machine of agent at state 8

	N	E	S	W
0	0, N	2, Ø	2, Ø	0, Ø
1	2, Ø	2, Ø	2, Ø	1, Ø
2	3, N	2, Ø	3, S	2, Ø
3	3, Ø	2, Ø	3, Ø	3, Ø

(i) State Machine of agent at state 9

Figure 1: Agent state machines at different positions on the patch, a tuple designates next memory state and a picked movement direction, or *do nothing* otherwise. Empty hatched cells should be treated as erroneous states. Input direction is a position of empty cell at the beginning of time tick. In the absence of neighboring empty cell agents *do nothing* (not shown).