(a) State Machine of agent at state 1

input \ memory	∅	N	W	N+W
0	0, ∅	2, N	2, W	2, N
1				
2	2, ∅	2, ∅	2, ∅	2, ∅
3				

(b) State Machine of agent at state 2

input \ memory	∅	N	E	N+E
0	0, ∅	1, N	0, ∅	2, N
1				
2	2, ∅	2, ∅	2, ∅	2, ∅
3				

(c) State Machine of agent at state 3

input \ memory	∅	E	S	E+S
0	0, ∅	3, ∅	2, ∅	3, ∅
1	2, ∅	3, ∅	2, ∅	3, ∅
2	2, ∅	3, ∅	2, S	2, S
3	2, ∅	2, E	2, S	2, E

(d) State Machine of agent at state 4

input \ memory	∅	S	W	S+W
0	0, ∅	2, ∅	0, ∅	2, ∅
1		2, ∅		2, ∅
2	2, ∅	2, S	2, ∅	2, S
3				

(e) State Machine of agent at state 9

input \ memory	∅	N	S	N+S
0	0, ∅	1, N	1, ∅	1, N
1	1, ∅	2, N	2, ∅	2, ∅
2	2, ∅	2, ∅	2, S	2, S
3				

(f) State Machine of agent at state 5

input \ memory	∅	N	E	W	N+E	N+W	E+W	N+E+W
0	0, ∅	1, N	0, ∅	2, W	1, N	1, N	2, W	1, N
1								
2	2, ∅	2, ∅	2, ∅	2, ∅	2, ∅	2, ∅	2, ∅	2, ∅
3								

input / memory	∅	N	E	S	N+E	N+S	E+S	N+E+S
0	0, ∅	1, N	0, ∅	1, ∅	1, N	1, N	1, ∅	1, N
1	1, ∅	2, N	1, ∅	2, ∅	2, N	2, ∅	2, ∅	2, ∅
2	2, ∅	2, ∅	2, ∅	2, S	2, ∅	2, S	2, S	2, S
3	░	░	░	░	░	░	░	░

(g) State Machine of agent at state 6

input / memory	∅	E	S	W	E+S	E+W	S+W	E+S+W
0	0, ∅	1, ∅	2, ∅	0, ∅	1, ∅	1, ∅	2, ∅	1, ∅
1	2, ∅	2, E	2, ∅	1, ∅	2, E	2, E	2, ∅	2, E
2	2, ∅	1, ∅	2, S	2, ∅	2, S	1, ∅	2, S	2, S
3	░	░	░	░	░	░	░	░

(h) State Machine of agent at state 7

input / memory	∅	N	S	W	N+S	N+W	S+W	N+S+W
0	0, ∅	1, N	2, ∅	0, ∅	1, N	1, N	2, ∅	1, N
1	1, ∅	░	2, ∅	1, ∅	2, ∅	░	2, ∅	2, ∅
2	2, ∅	2, ∅	2, S	2, ∅	2, S	2, ∅	2, S	2, S
3	░	░	░	░	░	░	░	░

(i) State Machine of agent at state 8

Figure 0: 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.