

	\emptyset	N	W	$N+W$
0				
1				
2				
3				

(a) State Machine of agent at state 1

	\emptyset	N	E	$N+E$
0				
1				
2				
3				

(b) State Machine of agent at state 2

	\emptyset	E	S	$E+S$
0				
1				
2				
3				

(c) State Machine of agent at state 3

	\emptyset	S	W	$S+W$
0				
1				
2				
3				

(d) State Machine of agent at state 4

	\emptyset	N	S	$N+S$
0				
1				
2				
3				

(e) State Machine of agent at state 9

	\emptyset	N	E	W	$N+E$	$N+W$	$E+W$	$N+E+W$
0								
1								
2								
3								

(f) State Machine of agent at state 5

$\frac{\text{input}}{\text{memory}}$	\emptyset	N	E	S	N+E	N+S	E+S	N+E+S
0								
1								
2								
3								

(g) State Machine of agent at state 6

$\frac{\text{input}}{\text{memory}}$	\emptyset	E	S	W	E+S	E+W	S+W	E+S+W
0								
1								
2								
3								

(h) State Machine of agent at state 7

$\frac{\text{input}}{\text{memory}}$	\emptyset	N	S	W	N+S	N+W	S+W	N+S+W
0								
1								
2								
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. In the absence of neighboring empty cell.