| State Transition Table | | | | | |
|------------------------|---|---------------|---|--------|------------------|
| current | | previous | | action | (cur - pre +4)%4 |
| 1 | 0 | ↑ | 0 | # | 0 |
| | | ← | 1 | R | 3 |
| | | \downarrow | 2 | × | 2 |
| | | \rightarrow | 3 | L | 1 |
| ← | 1 | ↑ | 0 | L | 1 |
| | | ← | 1 | # | 0 |
| | | \downarrow | 2 | R | 3 |
| | | \rightarrow | 3 | × | 2 |
| ↓ | 2 | ↑ | 0 | × | 2 |
| | | ← | 1 | L | 1 |
| | | \downarrow | 2 | # | 0 |
| | | \rightarrow | 3 | R | 3 |
| \rightarrow | 3 | 1 | 0 | R | 3 |
| | | ← | 1 | × | 2 |
| | | \downarrow | 2 | L | 1 |
| | | \rightarrow | 3 | # | 0 |