

The diagram for this activity can also be represented as a table. The table below has one line for each state and shows whether the state has dirt in the left position, whether it has dirt in the right position, and whether the vacuum cleaner is in the left or right position. For each state and action, the table shows the new state that is reached by applying the action. For example, if the Suck action is applied in state 1, then we will transition to state 3.

State	1	2	3	4	5	6	7	8
Dirt Left	True	True	False	False	True	True	False	False
Dirt Right	True	True	True	True	False	False	False	False
Vacuum Position	Left	Right	Left	Right	Left	Right	Left	Right
Action – Left	1	1	3	3	5	5	7	7
Action – Right	2	2	4	4	6	6	8	8
Action – Suck	3	6	3	8	7	6	7	8