

```
1 def vacuum_cleaner(env, vacuum_pos):
2     steps = 0
3     print(f"Initial state: Room A={env['A']}, Room B={env['B']}, Vacuum in {vacuum_pos}")
4
5     while env['A'] == 1 or env['B'] == 1:
6         steps += 1
7
8         if env[vacuum_pos] == 1:
9             env[vacuum_pos] = 0
10            print(f"Step {steps}: Cleaned {vacuum_pos}")
11        else:
12            vacuum_pos = 'B' if vacuum_pos == 'A' else 'A'
13            print(f"Step {steps}: Moved vacuum to {vacuum_pos}")
14
15        print(f"All rooms clean in {steps} steps!")
16        print(f"Final state: Room A={env['A']}, Room B={env['B']}")
17
18 environment = {'A': 1, 'B': 1}
19 vacuum_position = 'A'
20
```

```
>>> %Run -c $EDITOR_CONTENT
```

```
Initial state: Room A=1, Room B=1, Vacuum in A
```

```
Step 1: Cleaned A
```

```
Step 2: Moved vacuum to B
```

```
Step 3: Cleaned B
```

```
All rooms clean in 3 steps!
```

```
Final state: Room A=0, Room B=0
```

```
>>>
```