

# Finite State Machines

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# What Is a Finite State Machine?

- It is an abstract model of a simple machine/computer and its various states of function and input procedures
- There can only be a finite number of states represented
- Input is received and depending on the current state and the input received the machine will move to a new state
- A finite state machine must start at what is called the initial state
- Certain states are classified as finishing states and once the machine has reached this state input reception is ceased. However there does not need to be a final state.

# What Does a Finite State Machine Look Like?

- A very simple finite state machine is an automatic room vacuum
- In this computer simulation we are going to run we can see a demonstration of how finite state machine works