# MockRobot Device API

The MockRobot is a robotic arm that moves objects to and from various locations around a system. The robot can be controlled remotely by sending the commands supplied in this document to the robot’s onboard software. The software will open a socket on port 1000, which will accept commands sent over TCP/IP.

Commands sent to the robot should be in this format: a string with the command name first, followed by a “%” symbol, then any parameters required for the command. Note that the MockRobot can only perform one process at a time, and will return a negative processID for any commands to begin a process while another process is in progress, rejecting the new command.

The MockRobot’s onboard software will accept the following commands:

* “home” – Takes no parameters. Returns int, *processID*. This command tells the robot to begin its homing process, which needs to complete before the robot can move samples, and may take up to two minutes. The onboard software will immediately return a unique ID that can be used to track the status of the running Home process.
* “pick” – Takes an int, *sourceLocation*. Returns int, *processID*. This command tells the robot to begin a process to pick up a sample from the provided *sourceLocation*. The onboard software will immediately return a unique ID that can be used to track the status of the running Pick process. The process may take up to five minutes.
* “place” – Takes an int, *destinationLocation*. Returns int, *processID*. This command tells the robot to begin a process to place a sample to the provided *destinationLocation*. The onboard software will immediately return a unique ID that can be used to track the status of the running Pick process. The process may take up to five minutes.
* “status” – Takes an int, *processID*. Returns a string, *processStatus*. This command retrieves the status of the process specified by *processID*. The returned *processStatus* will be a message from the following list:
  + In Progress
  + Finished Successfully
  + Terminated With Error