

# Toy Robot Project

The application is a simulation of a toy robot moving on a square tabletop, of dimensions 5 x 5 units.

Version	1.0.0.X
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Model	T-900

## Artifacts

Swagger Documentation	<a href="https://toy-robot-t900.herokuapp.com/toyRobot/swagger-ui.html">https://toy-robot-t900.herokuapp.com/toyRobot/swagger-ui.html</a>
<div><div><div><div><div><div><b>joy-stick-controller</b> : Available commannds on the JoyStick Controller</div><div>Show/Hide</div><div>List Operations</div><div>Expand Operations</div></div></div><div><div><div>PUT</div><div>/joyStick/left</div><div>LEFT will rotate the robot 90 degrees in the specified direction without changing the position of the robot.</div></div><div><div>PUT</div><div>/joyStick/move</div><div>MOVE will move the toy robot one unit forward in the direction it is currently facing</div></div><div><div>POST</div><div>/joyStick/place</div><div>PLACE will put the toy robot on the table in position X,Y and facing NORTH, SOUTH, EAST or WEST. The origin (0,0) can be considered to be the SOUTH WEST most corner.</div></div><div><div>GET</div><div>/joyStick/report</div><div>report</div></div><div><div>PUT</div><div>/joyStick/right</div><div>RIGHT will rotate the robot 90 degrees in the specified direction without changing the position of the robot.</div></div></div><div>[ BASE URL: /toyRobot , API VERSION: 1.0 ]</div></div></div></div>	
Live Implementation	<a href="https://toy-robot-t900.herokuapp.com/toyRobot/joyStick/report">https://toy-robot-t900.herokuapp.com/toyRobot/joyStick/report</a>
Postman Collections	<a href="https://github.com/zaveriakshay/toyrobot/tree/develop/Postman">https://github.com/zaveriakshay/toyrobot/tree/develop/Postman</a>
Source Code	<a href="https://github.com/zaveriakshay/toyrobot/tree/develop/src">https://github.com/zaveriakshay/toyrobot/tree/develop/src</a>

## Instructions

- **PLACE** will put the toy robot on the table in position X,Y and facing NORTH, SOUTH, EAST or WEST.
- **MOVE** will move the toy robot one unit forward in the direction it is currently facing.
- **LEFT** and **RIGHT** will rotate the robot 90 degrees in the specified direction without changing the position of the robot.
- **REPORT** will announce the X,Y and F of the robot.

## Rules

- The origin (0,0) can be considered to be the SOUTH WEST most corner, this always the default posiion on the robot
- The robot must not fall off the table during movement. This also includes the initial placement of the toy robot.
- The robot that is not on the table can choose the ignore the MOVE, LEFT, RIGHT and REPORT commands.
- Currently there is no command to remove the robot off the table, we need to restart the spring boot application.

## Technical Specifications

- This is a Spring Boot application
- Default port for this application is 8085 .
- Default context path for this application is /toyRobot
- Default controller for this application is joyStick
- All services are REST, after the end point /toyRobot/joyStick are described on the swagger page as well
  - i. **PLACE** (POST) /toyRobot/joyStick/place
  - ii. **MOVE** (PUT) /toyRobot/joyStick/move
  - iii. **LEFT** (PUT) /toyRobot/joyStick/left
  - iv. **RIGHT** (PUT) /toyRobot/joyStick/right
  - v. **REPORT** (GET) /toyRobot/joyStick/report