

Virtual Robot Line Follow

EF 230

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Our virtual robot runs a line follow program that causes it to follow a path toward a beacon and once it reaches that beacon, lights up. The robot is programmed to move at 0.015 m/s with a reflectivity datum of 5%. This means that when the robot detects a dark surface such as the path we have indicated, it will follow it. Otherwise, both Cliff sensors have been programmed to self-correct with 5-degree turns should the robot get off-track or need to follow the turns of the path. The path includes left and right turns at various angles designed to show off the capability of the robot's sensors to detect changes in its path. By utilizing loops in MATLAB, the robot should be able to autonomously navigate through any room or map where this is an indicated path or special dark material under the robot.

Flowchart

