

Autonomous Robotic Navigation

Christensen, Nathan

A robotic lawn mower will use a process of radio distance determination to autonomously map and mow a yard. The three sensors will communicate with the robotic lawn mower via radio frequencies, and use a GPS like system to locate the robot in the yard. The robotic mower will be powered by an electric battery, and mulch the grass using a unique blade system. The robotic mower will be tested by having the robot mow several lawns that differ in the amount of slope in the yard, and types of obstacles, such as trees, rocks, lawn ornaments, etc... The mower will be observed, evaluated, and improved based on the results of the mowing. The mower is still being developed, tested, and improved to increase the overall functionality of the robot, and prepare it for future commercial usage.