

IEEE Micromouse Spring 2018

Lab 7: Floodfill

- Introduction
- Simulator
- Writing Floodfill
- Implement on your Micromouse

Introduction

We need our mice to be able to solve the maze! This is a rather simple process based on the idea of recursion.

Simulator

In our previous labs, we learned how to follow walls, move specific distances, and detect. Now we need to use this information to solve the maze! We're going to be using a simulator that will take a maze solving algorithm and run it in a GUI to solve the virtual maze. The solver executable is quite large so if you cannot download it, there will be flash drives provided with the program.

The starter code for the solver is provided in the zip file. We will now go over how the simulator is used.

Writing Floodfill

Floodfill is an algorithm that prioritizes movement that decreases the distance between where you are now and the goal. This distance is non-intuitive as the algorithm proceeds but it starts on a basic principle, Manhattan distance.

Checkoff #1

1. Demonstrate your working simulation!

Implement on your Micromouse

Checkoff #2

1. Show your mouse solving the maze!