

COZMO[®]

Big brain. Bigger personality.

Maze Navigator

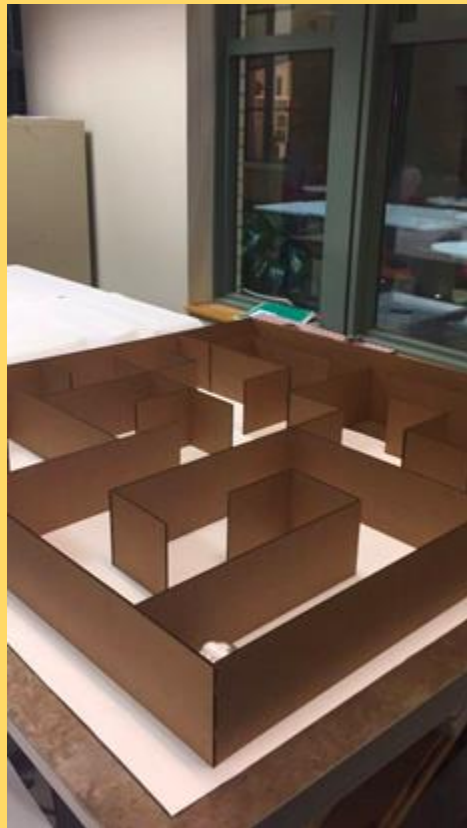
Justin Zhao and Keith
Yeung



anki

Objectives

- Detecting the Walls
- Detecting distances and rotations to walls
- Deciding the moves to make
- Mapping the walls

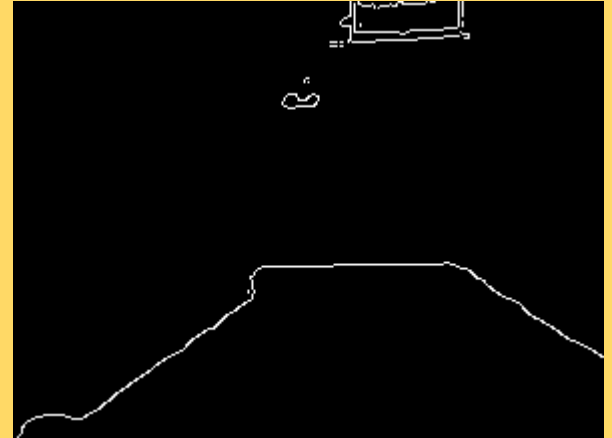
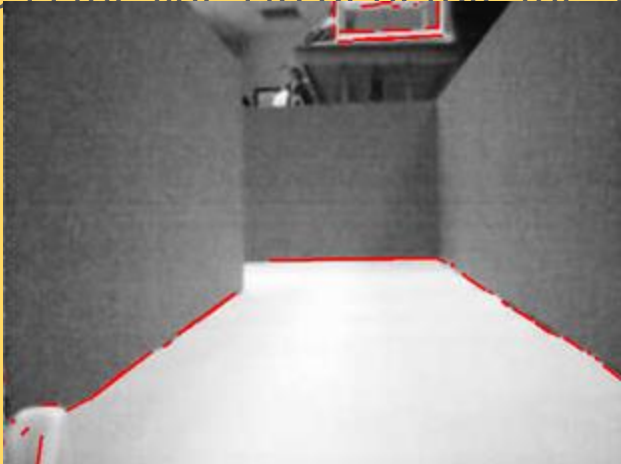


Detecting the Walls

Thresholded Image for detecting edges of the wall

Process the image to generate a series of lines

Process the lines to generate the specific walls



Navigating the Maze

Build dictionary to hold a points -> walls

Detect the walls and add walls to dictionary

Keeps track of block coordinates to make
decision on next move

Moves are deciding based on Depth-First-
Search



Things to Finish

Fixing errors for cozmo to move at the center of each block

Fixing the DFS to take into account visited blocks