**CS3050 Fall 2017**

**Final Project, Group 12**

Connor Fitzmaurice - cpfztb

Alexander Flynn – afdg5

Katherine Mawhinney – kzm454

William Smith – ws42c

Problem:

Given a maze with two different robots with different escape points for each and the limitation that the robots should never be adjacent, have the robots navigate the maze to their own exit.

Plan:

Maze is given as a text file. Parse it into a two dimensional array of characters. Set a barrier around second robot, then have first robot navigate maze following right-hand rule. Clear maze of first robot and its trail, then have second robot navigate maze in identical manor.

Execution:

Conner – File in and error check

William – Traversal

Alex – Display

Katherine – Display, code review, and documentation

Algorithms:

createMap(file) {

columnSize = length of longest text line

rowSize = number newline chars plus 1

map[rowSize][columnSize] = text in file at position [rowSize][columnSize] }

findExit(maze, start char, end char, char to avoid)

while not done {

find safe direction to move

move there

mark prior spot

if at end

mark exit

display map

return }