

MODULE DEPENDENCY

FLOW-CHART

w/ RESPONSIBILITIES

DECISION MAKING

RESPONSIBILITIES

- Instruct robot control module with: "Stop, Go, Turn right, Turn left".
- Solve for fastest path of maze using simultaneous data of multiple robots.

OUTPUTS

INSTRUCTION:
STOP/GO/TURN

MAPPING AND POSITION TRACKING

RESPONSIBILITIES

- Mapping of the maze.
- Tracking of all three robots.

OUTPUTS

INPUTS

MAP DATA

CURRENT POSITION OF MICE

MAP DATA

CURRENT POSITION OF MICE

DETECTION OF:
TURN/INTERSECTION/DEAD-END/GOAL

ENCODER VALUES

INPUTS

ROBOT CONTROL

RESPONSIBILITIES

- Control of robot.
- Detecting turns/intersections/dead-ends/goal.
- Special behavior functions for turns/dead-ends/goal.

OUTPUTS

INPUTS

INSTRUCTION:
STOP/GO/TURN

LIGHTBAR VALUES

DETECTION OF:
TURN/INTERSECTION/DEAD-END/GOAL

MOTOR INSTRUCTION

CURRENTLY
NOT UTILIZED



CURRENTLY
NOT UTILIZED



ENCODERS

IMU

CAMERA

LIGHT BAR

I N P U T

CURRENTLY
NOT UTILIZED



SCREEN

MOTORS

CURRENTLY
NOT UTILIZED



SPEAKER

O U T P U T