

# Exercise five: MiiA Maze Challenge

## Aim:

The aim of this exercise is to test the performance of the code developed.

## Objective

Code the functions for your robot controller in any way you feel fit using the Lofi platform. The objective of this challenge is to navigate through a maze from one side to the other using the coded controller.

**Hint:** To construct the controller follow the steps in the **Miia Controller construction\_Exercise Five - Part 7.mp4** Video.

## Instruction

- Get from the start to finish as quickly as possible
- The robot should walk over the boundaries, if this happens they should be brought back before the boundary
- The time starts once the robot has crossed the start line
- The robot can be righted if it has fallen over. However this will result in a penalty. It also should not be placed further in the maze.
- All the checkpoints should be entered before going to the finish line and time penalties will be imposed if this is not done.

## Scoring

- The robot that navigates the maze the quickest wins.
- 10 seconds is added ever time the robot falls over and needs to be righted manually
- No time penalty is imposed if the robot walks over a boundary, however the robot needs to be brought back before continuing with the course.
- 2 minute is added to the time for each checkpoint not reached.

### Proposed Maze

