

COMP 329 2017 Assignment 01 - Mapping and Occupancy Grids

Assessment of Demonstration/Video - 40% of Final Mark

Based on Movement (20%), Use of Display (10%) & Understanding (10%)

Demonstration

Video

Group:

Assessor:

Date:

Group members present

Group members absent

Movement and Obstacle Avoidance (20% of Assignment Mark)

Grade	Grade Indicator
F (0-7)	There is little or no movement.
D (8-9)	Basic strategy, eg repeatedly move until obstacle and then turn.
C (10-11)	Strategy involves local heuristics, e.g. go round obstacle.
B (12-13)	Strategy involves arena-wide heuristics e.g. navigate a given path across arena.
A/A+ (14-20)	Strategy is goal driven e.g. navigate to unexplored cells. A+ (16-20) will be awarded for efficiency, ingenuity and style in the strategy
Grade/Mark Awarded	Assessor's Comment

Mapping and Use of Display (10% of Assignment Mark)

Grade	Grade Indicator
F (0-3)	There is little or no evidence of mapping.
D (4)	Simple (non-graphical) mapping data evident on LCD screen that corresponds to the arena.
C (5)	A basic graphical map, e.g. binary occupancy, is displayed on the LCD screen.
B (6)	Reasonable attempt at probabilistic occupancy grid shown on the LCD screen.
A/A+ (7-10)	Good probabilistic occupancy grid (inc different displays for numerical details) shown on the LCD screen. A+ (8-10) will be awarded for ingenuity and style.
Grade/Mark Awarded	Assessor's Comment

Understanding and Explanation (10% of Assignment Mark)

Grade	Grade Indicator
F (0-3)	Little or no explanation offered by team members.
D (4)	Basic explanation of strategy offered by some team members.
C (5)	Basic explanation and reasonable answers to questions by most team members
B (6)	Good explanation and answers involving all team members.
A/A+ (7-10)	In addition, explanation shows good insight into the assignment. A+ (8-10) will be awarded for demonstrating excellent insight, e.g. beyond the scope.
Grade/Mark Awarded	Assessor's Comment

Additional Notes for Students

- You will be given time to prepare your demonstration. You need to ensure that before the start of the demonstration, your program is uploaded to the EV3 robot, any Bluetooth pairing or Wifi is set up, and preparation of the arena is complete.
- You will have a time limit of 15 minutes and will be assessed on one full run of your program. In case of a technical difficulty, you will be allowed to stop and restart your program once, and the second run will be assessed, within the same 15 minute time limit.
- You will be asked questions about your solution during and after the run of your program, to assess your understanding of your solution and its implications beyond the scope of the assignment.
- The assessment grid gives an indication of the level of performance expected at each grade point, NOT CRITERIA THAT YOU MUST ACHIEVE to get each grade. The assessors will compare your performance to these levels to determine the grade/mark for your solution, which may be different.
- The assessment of code and demo contribute towards 80% of the Assessment mark. The final 20% will be based on the individual performance, judged by the peer review form and the log of individual activity.