

Robothon

- Team competition, each team programs a robot for each event
- Events
 - Robot rally - Race your robot round
 - Robot retrieve - Fetch balls with the robot
 - Robot rumble - Last robot moving in a ring
- Points
 - Individual (Robot rumble is round robin)
- Ranking, the lowest overall score wins (the score is the sum of the teams positions in all events)

Robot rally

- Program the robot to maneuver a track as fast as possible without human intervention. Time limit is $T=60$ seconds. (If no one finishes the track distance is counted)
- There is an obstacle on the course
(The arms will be removed)
(Use a PC as an obstacle and place at the centre of the first long side, one side at 8, and one side at the center of the mat. If necessary raise the lid of the PC to allow the robot to detect the obstacle)

Robot retrieve

- Program the robot to bring as many balls as possible to its zone without human intervention. The time limit is $T=60$ seconds
- (Open the motor controlling the arms to 20 degrees, otherwise the arms will snap)

Robot rumble

- Program the robot to be the only moving robot in the ring without human intervention.
- The time limit is $T=60$ seconds
- The robots are allowed to push, but arms are removed
- Out is when both wheels are outside the ring, or 1 robot stops activity
- Starting positions are facing each other on with the wheels on the line of the short side of the ring
- 1 failed robot = lose, 2 failed robots = draw
- The judge decides on restarts - if robot fails to start, then 1 restart is allowed.

Final notes

- Material can be found at <http://ncra.ucd.ie/icsp>
- Fill in feedback form
- Your task for next week is to individually write a 1-3 page report (about paragraph per event). For each Robothon event
- Describe your plan for the event
- Describe the implementation of the plan
- Describe what you would change if you would do the event again