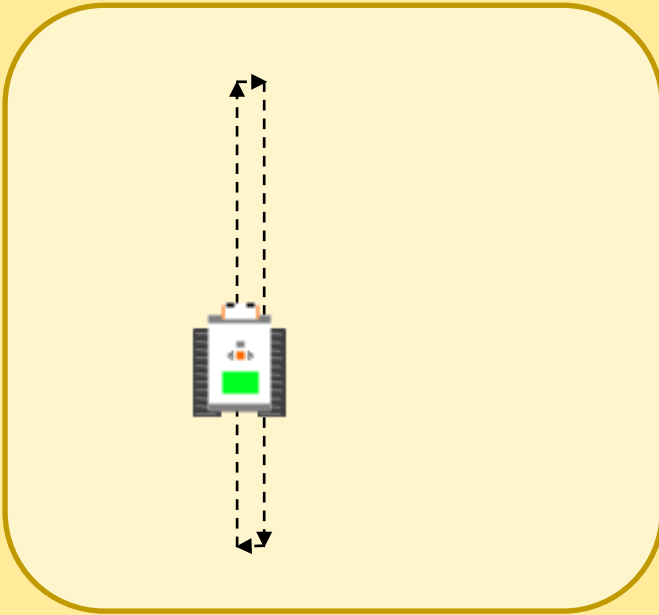


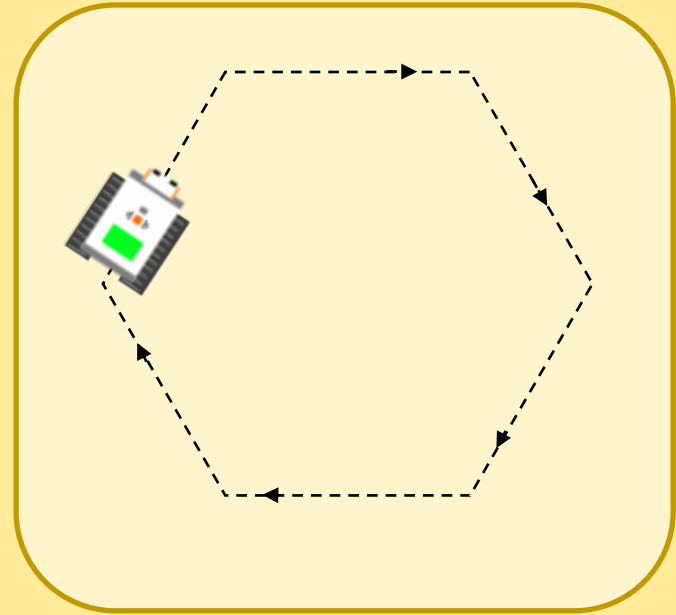
Guard Robot



Instructions

Make the robot move forwards for two metres.
It should pause for 4 seconds, then turn around 180 degrees and come back to the starting point.
It should pause again for 4 seconds
Then turn 180 degrees again and repeat the process

Shape Robot

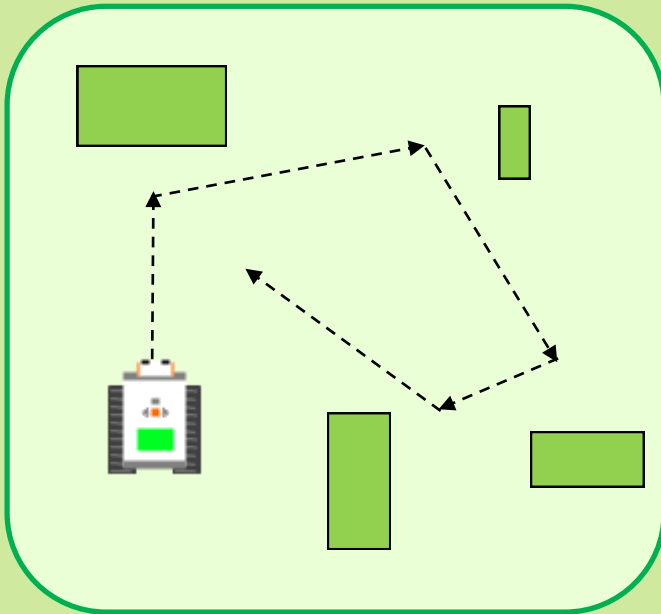


Instructions

Make the robot move in a series of shapes. Try:

- A square or rectangle
- An octagon (there is a smart way to do this, and a Really Smart™ way)
- How could you move in a circle?

Obstacle Avoider

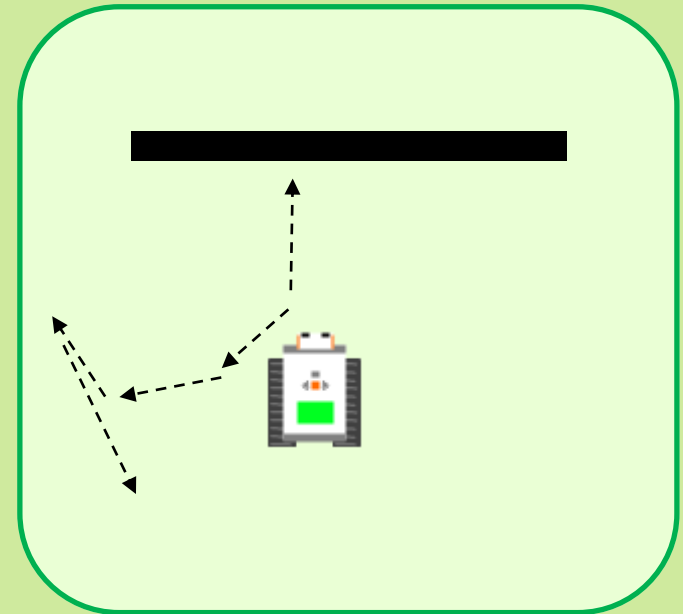


Instructions

Make a robot which moves around the room and avoids obstacles.

- If the obstacle is closer than 20 centimetres the robot should take evasive action!
- The robot should never touch an obstacle!
- Bonus marks if the robot moves by different amounts (i.e. it doesn't always turn 45 degrees or 90 degrees etc)

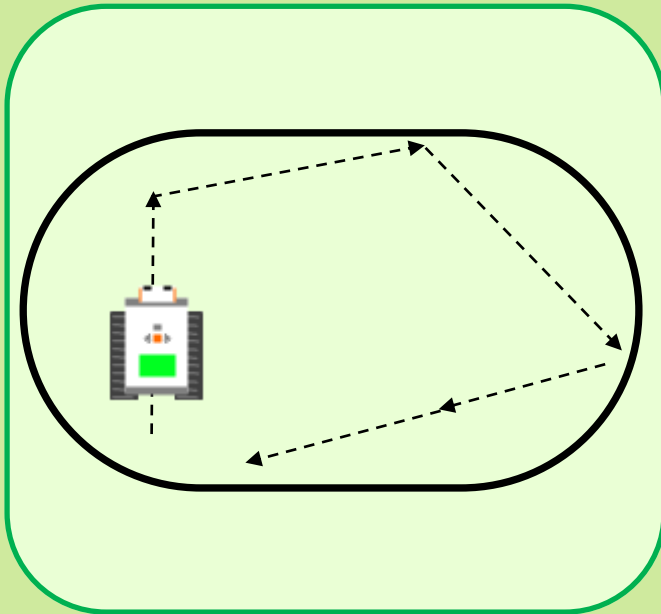
U-Turn Robot



Instructions

- Make the stop when it detects an obstacle within 10 centimetres. Make it reverse in a curve so it can turn around

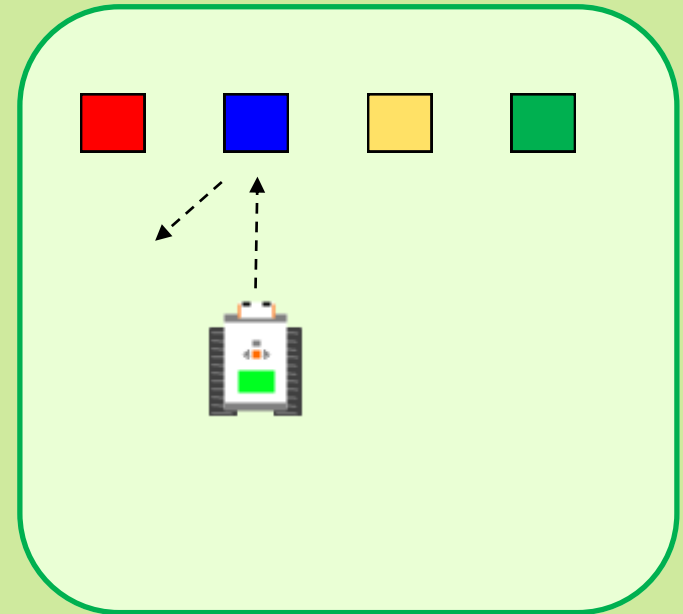
Insider Robot



Instructions

- For this you will need the LEGO Test Pad. Place the robot inside the oval. The robot should run continuously without ever leaving the oval.
 - For an extra challenge, make it avoid any obstacles that may be in the oval too!
 - For a triple challenge, make the robot stay as close to the line as possible without going over it.
- (You need the LEGO test pad from me)

Colour Detection



Instructions

- Make the robot perform different actions depending on the colours it sees on the ground in front of it. If it goes over:
 - Red: stop
 - Blue: turn left
 - Green: turn right
 - Yellow: Spin 180 degrees
- (You need the coloured card from me)