

## Ma204—Programming with Robots:

Distributed: March 30, 2009

## Homework 06

Due: April 6, 2009

*Submit the program files to me via the upload web page<sup>1</sup> described in class. Please do **not** print out your program, only submit it electronically.*

- (1) **Programming Exercise:** Build and program a robot that tracks the path poster in the MathLab. In order to successfully track the path, the robot must complete one full circuit keeping the path between the wheels at all times. Further, it must be able to do so in both the clockwise and counter-clockwise directions.

Bring your robot to class on Monday Apr 6th to demonstrate and compete for the fastest time around the path.

(There are a couple of extra light sensors. If you'd like to try to build a path tracker that uses a pair of light sensors, let me know and I'll lend you a second. First come, first serve.)

- (2) **Programming Exercise:** Modify the path tracking program to start and stop when a loud noise is detected. This will require the use of a separate task.
- (3) **Programming Exercise:** Include a third task of your own design.

---

<sup>1</sup><http://carrot.whitman.edu/204/upload.html>