The University of Western Australia
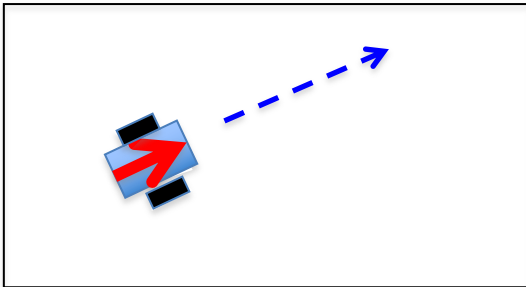School of Engineering
Prof. Thomas Bräunl

Embedded Systems
ELEC3020

Lab Assignment 8 – Robot Driving	Points: 10

EQUIPMENT: Mobile Robot with Embedded Controller
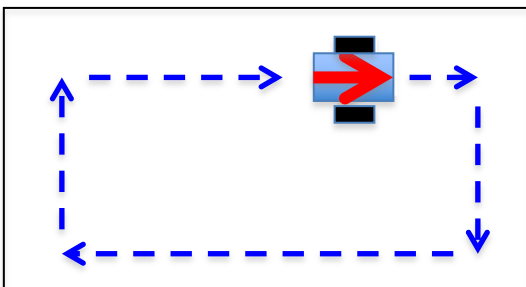   incl. PSD sensors and motors

EXPERIMENT 1 (2 points)

The robot is starting in a random position and orientation near the middle of the driving area. The task is to drive the robot straight and collision-free close to the wall in front, then turn to the right, so it is parallel to the wall (at the robot's left-hand side) in about 15cm distance.

EXPERIMENT 2 (4 points)

With the robot placed alongside one of the walls of the driving area in 15cm distance, drive one complete (and collision-free) loop around the driving area, always keeping a similar distance to the wall on the left-hand-side of the robot.

EXPERIMENT 3 (4 points)

Drive the robot in a lawnmower pattern instead.