The University of Western Australia
Dept. of Electrical & Electronic Engineering
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Intelligent Robotics
ENGT4311

Lab Assignment - Remote Control

Lab Assignment I2 **Individual Assignment** Due: week 4

Implement a remote control system that drives the robot from a PC. Use fltk to design a graphical user interface.

On the PC:
- Implement buttons for: forward, left, right, backwards.
  The robot should drive a short distance (10cm) for forward backward and turn a small angle (30 deg.) for left/right.

- Implement a text **box** for entering a robot program in language "**Drive**" (see previous lab). It should be possible to either enter text manually or load a program file by pressing a "**load**" button.
- Implement a "**compile**" button to check the program for correctness and generate the proper command sequence
- Implement a "**run**" button to send the compiled sequence of driving commands to the robot
- Implement a "**stop**" button to stop command sending immediately and stop the robot.

On the Robot:
For every driving command, use the PSD sensors. Do not execute a driving command if a minimum safety distance is breached.