CIS 1.5 Fall 2009 Lab III.2

1. Connect to the Scribbler

   Follow the instructions on the handout "How to connect to the Scribbler".

2. Remote control.

   Now run the second program in the folder `labIII.2`

   As with `control.cpp` you have to compile it and then run it. Type:

   ```
   make demo
   ./demo
   ```

   in the Terminal window.

   This program allows you to operate the robot by remote control. You can make the robot go forwards or backwards, you can make it turn, stop and beep.

   Drive the robot around a while.

3. Taking control

   Now you are ready to start programming the robot.

   First you need to edit the program. Type:

   ```
   nano control.cpp
   ```

   in the Terminal window.

   This opens up an editor that allows you to modify the code in the file `control.cpp`. Hopefully this looks a lot like other C++ programs you have written in the past.

   Edit the program so that it makes the robot go forwards for a short time, then stops, then backwards for a short time.

   To do this you will have to tinker with the commands in `control.cpp` trying to get the robot to do what you want it to do.

   When you have something to try, save the program (instructions are in the bottom of the window), exit `nano`, and then type:

   ```
   make control
   ./control
   ```

   in the Terminal window.

   Don't be surprised if it takes several attempts to get the program to work correctly.

   HINT: you might want to use `nano` *to look at the code for* `demo.cpp` *to give you some ideas about what to do.*

4. Back and forth

   Modify the program so that the robot goes forwards and backwards 3 times.

   Then modify the program to go forwards and backwards until the user enters q.

5. All square

   Finally, modify your program so that the robot drives in a square.