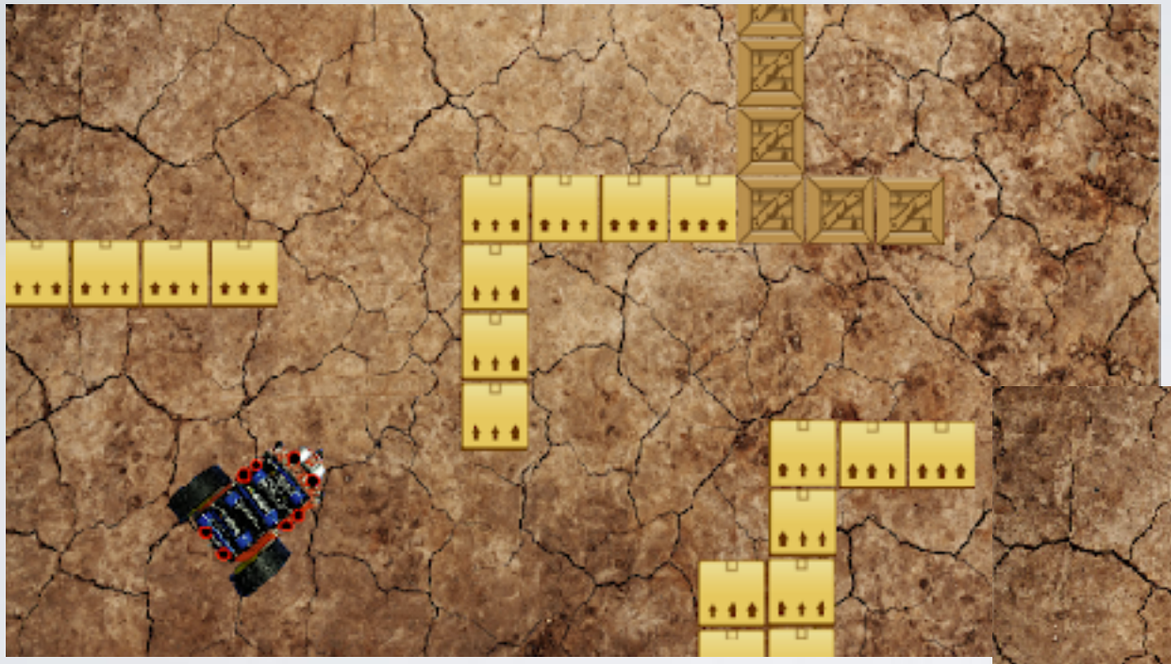
LIVERPOOL ROBOTIC PYTHON RESOURCES

Louise Dennis

THE BASICS

- Housekeeping.
- What are the Liverpool Robotic Python Resources?
- Ethos: Free exploration, flexible structure, ask questions at any time.

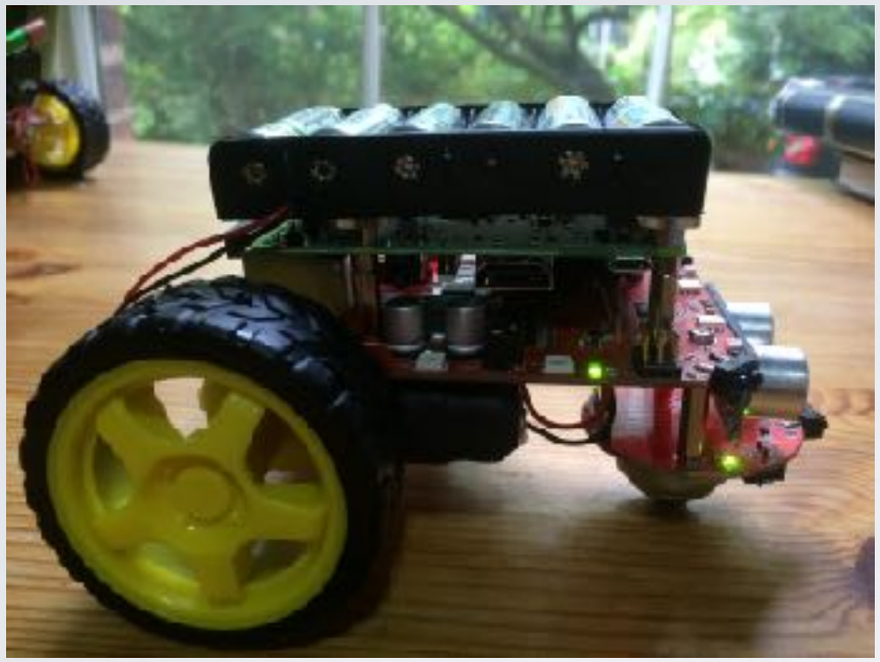


Virtual Pi2Go Robot

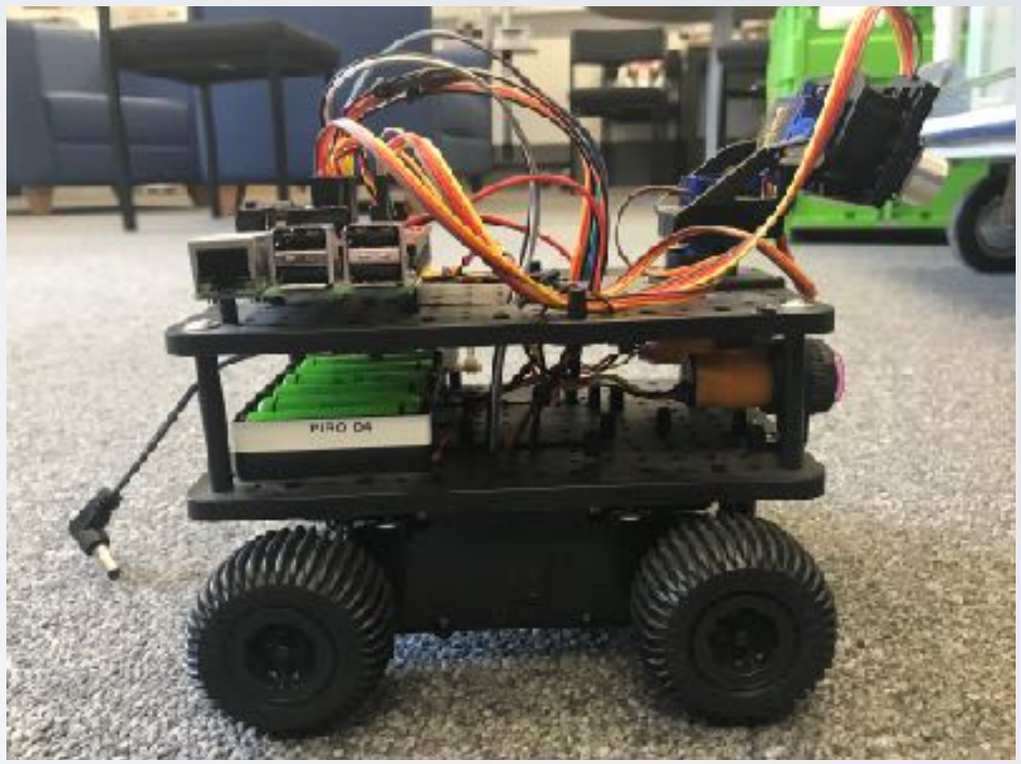
Virtual Initio Robot

PROGRAMMING VIRTUAL ROBOTS (THIS WEEK)

Initio and Pi2Go Virtual Robots on your USB stick and freely available from our Website (http://csc.liv.ac.uk/~lad/pyrobots)



Pi2Go Robot



Initio Robot

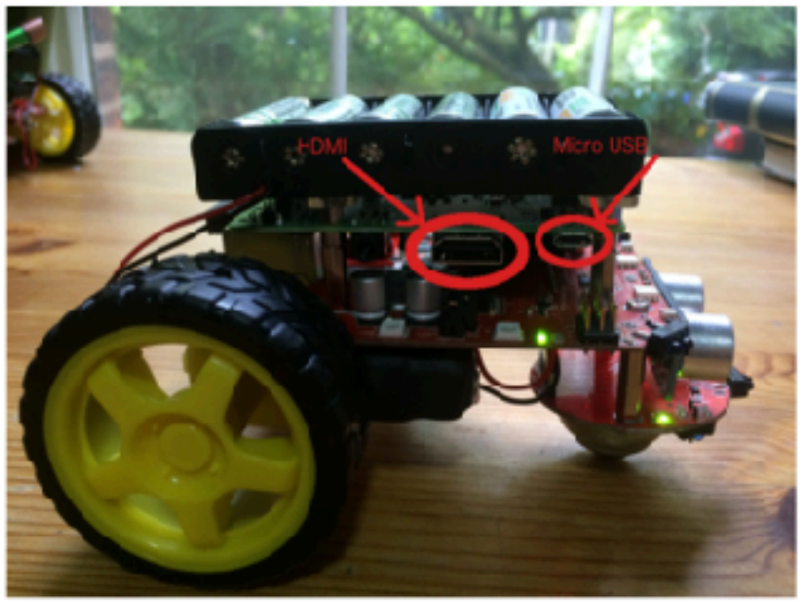
PROGRAMMING ACTUAL ROBOTS (NEXT WEEK)

Initio and Pi2Go Robots made by 4tronix (4tronix.co.uk)

Pi2Go Programming: Set Up

AIM: After following this worksheet you should be able to connect a keyboard, mouse and monitor to your Pi2Go robot and switch it on ready for use.

Your Pi2Go robot has several USB ports, an HDMI port and a micro USB port.



HDMI and Micro USB port locations

WORKSHEETS, EXTRA EXERCISES, SAMPLE ANSWERS, FREE IMAGES

On your USB stick and available from our website
You have the right to reuse and modify these.

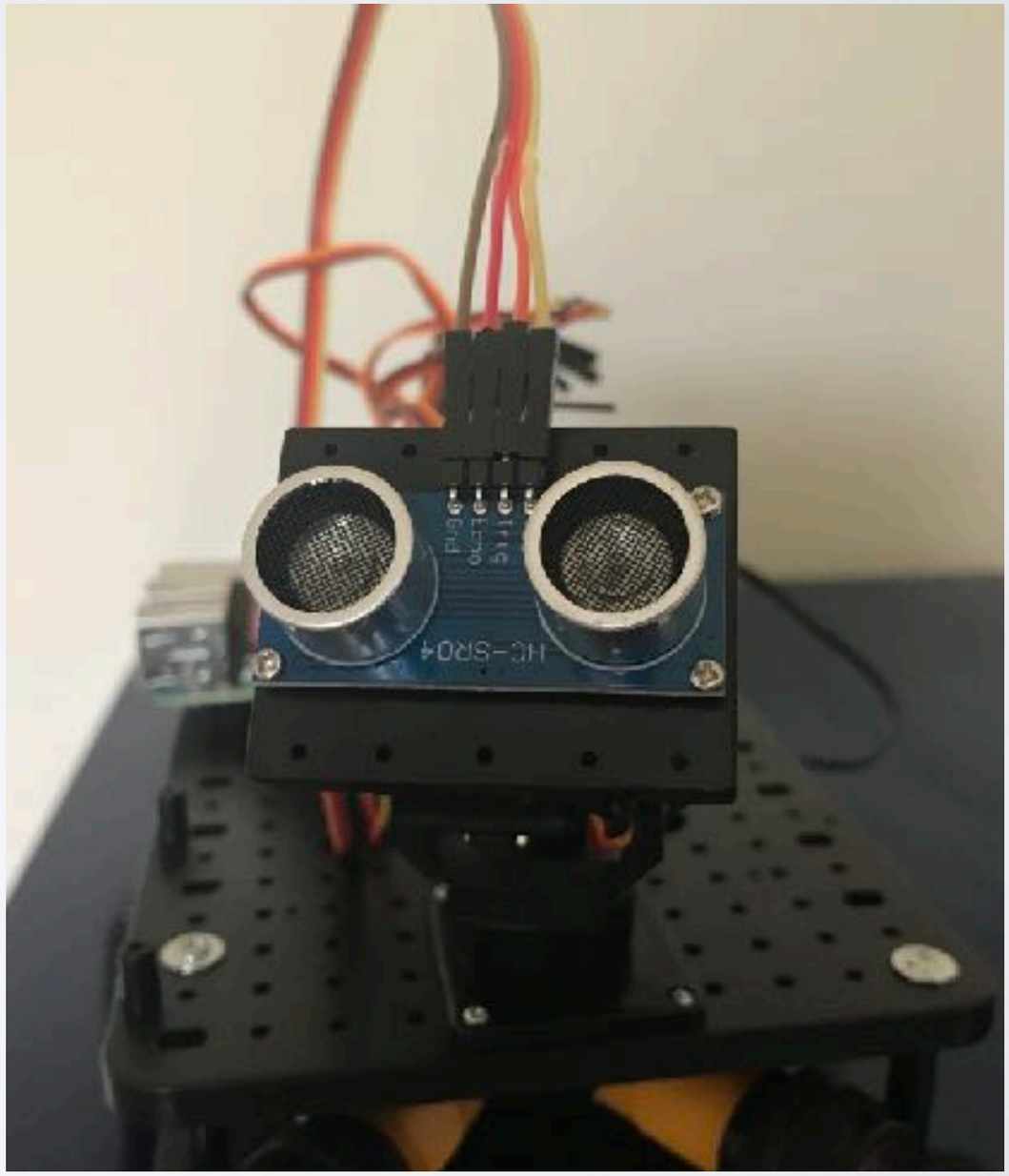
WORKSHEETS IN 4 PARTS

- Part 1: Basics (both for robots/ simulator and Python). Obstacle Avoidance example. (well-tested)

- Part 2: Variables, Datatypes, Functions. Wall following example.

- Part 3 (Simulators only): Data structures. Machine Learning example.

- Part 4 (Simulators only): Object orientation. Cognitive agent example.



FOLLOW ON SUPPORT

- Please agree to be included on our mailing list.
- Purpose: trouble-shooting, updates, follow up and evaluation (for us).

OBJECTIVES

- Gain experience using all the different robots (real and virtual).

- Become familiar with the worksheets and exercises.

- Understand the wider context of Autonomous Robots.

THE SIMULATOR

- Double click on Idle (almost last of massive set of apps on desktop)
- Select open file, select pysim.py, run module
- Open a **NEW** IDLE, start with worksheet