Lab 6
Tutorial

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Collective Decision

- Consensus
  - System converges, even though there is no "leader"
  - The *value* of the final consensus cannot be predicted
  - Each individual makes the best choice it can with the information available to it, and adjusts as necessary

Partial Perception

- If all agents have perfect & complete knowledge of the system state, solution is trivial
  - i.e. majority vote
- But, this is usually not the case…
  - Local information $\rightarrow$ local decision
  - Well-mixed $\rightarrow$ eventual convergence

Hardware

- Each group of 2 will receive:

  – 2 e-puck robots

  – 2 batteries

  – 2 radio modules

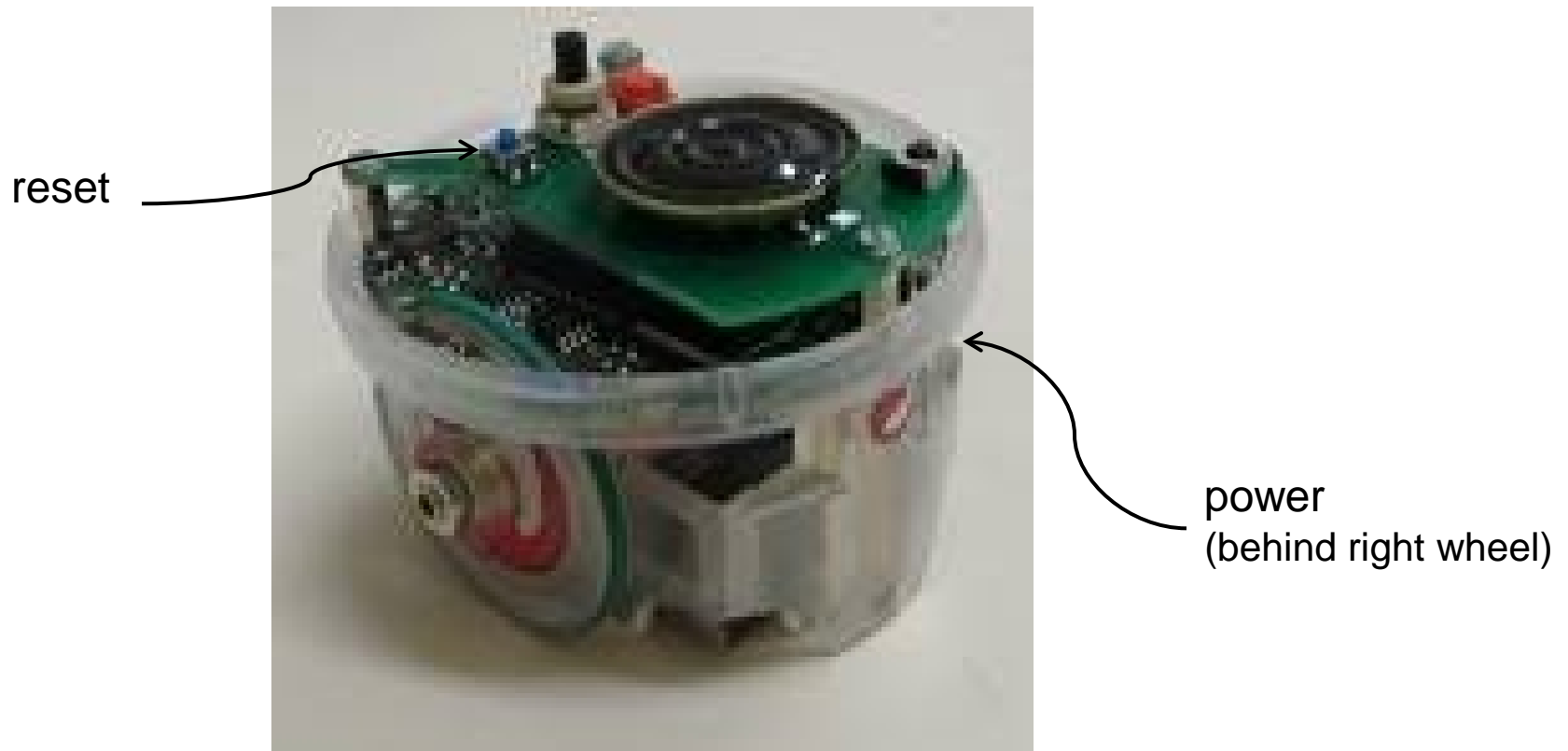 – 1 USB-Bluetooth dongle

  – 4 walls

  – 4 stands

  – 0.5 MICAz
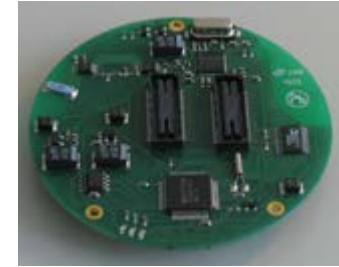
e-puck: insert battery
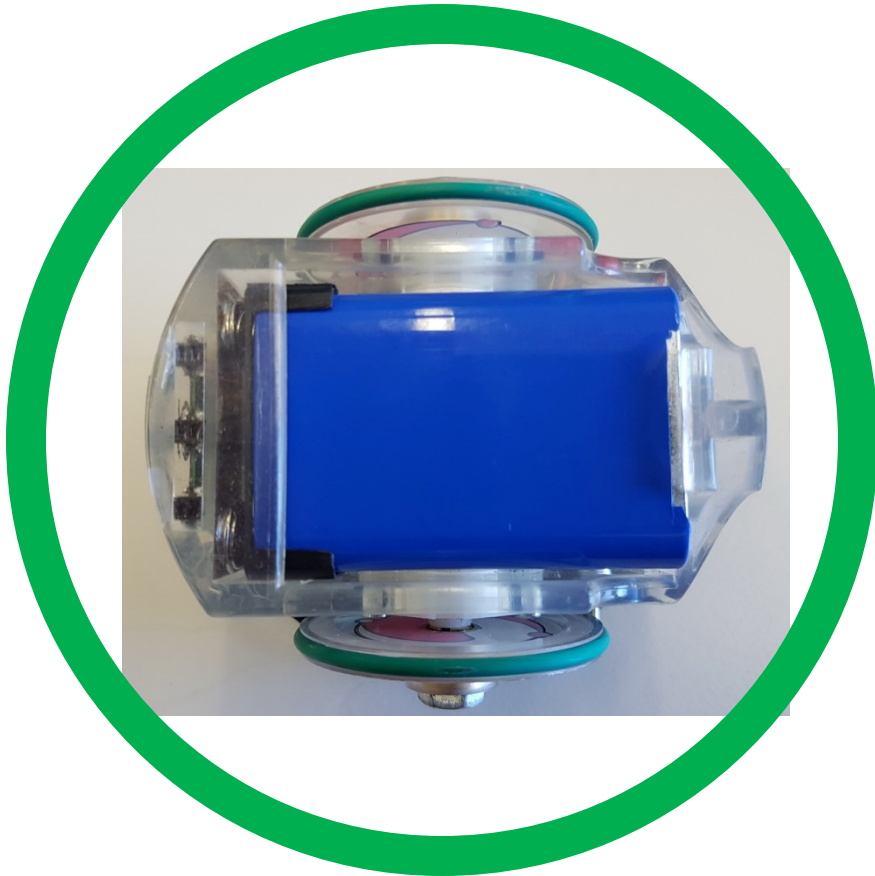
If you can see the serial number it's wrong

e-puck: Reminder

You will need to use 2 buttons on the robot:

reset

power
(behind right wheel)

Also: watch for the power (green) and the low-power LED (red)

Technical notes

E-puck part

- Communication board should be sandwiched between e-puck base & speaker board

- Calibrate IR sensors as indicated

- Watch for the low battery light