

Universal Remote Control

For Biorob's robots

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Reminder

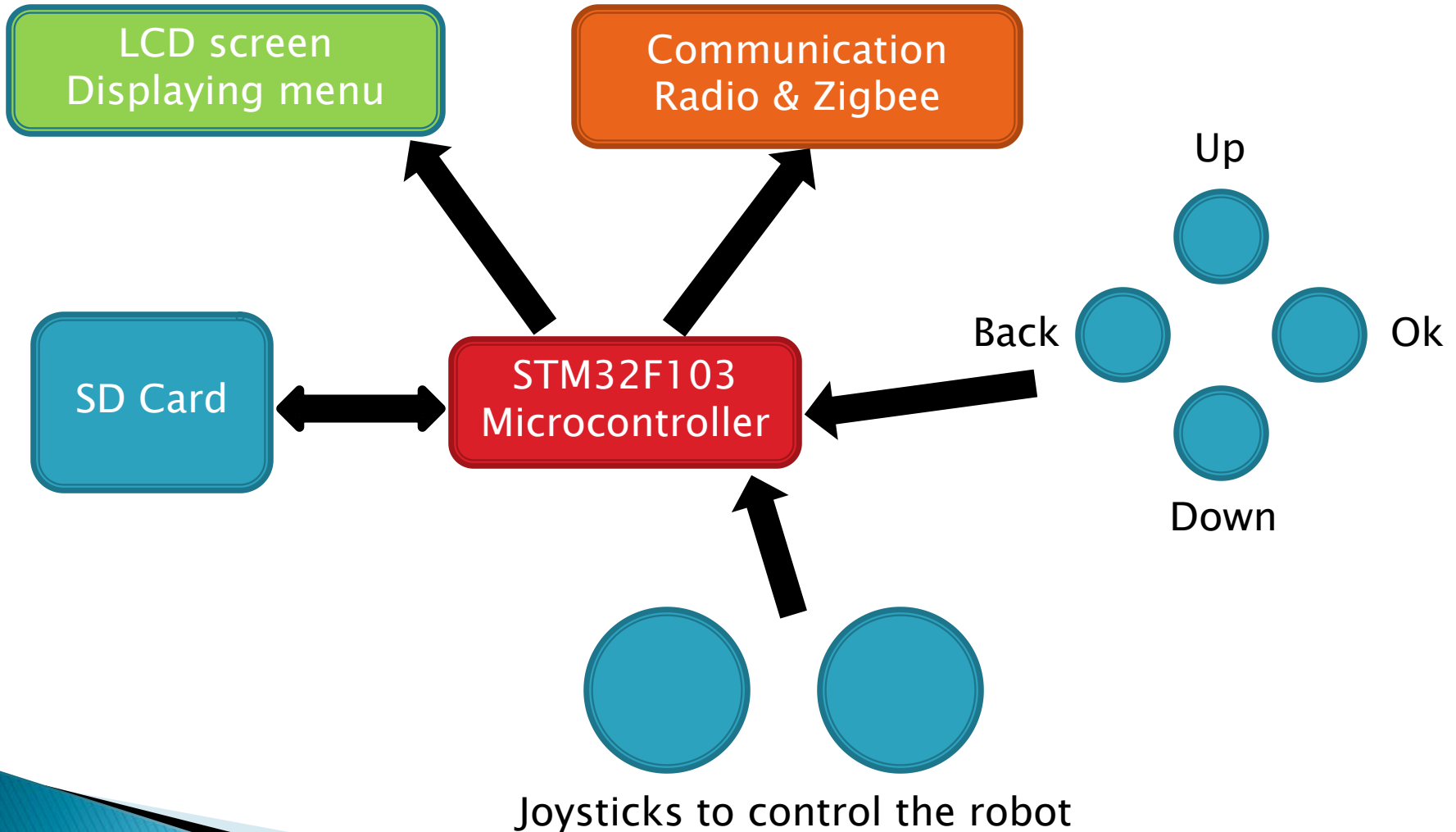
▶ Objectives

- Being able to control every robot in the lab
- Being able to flash a robot with the remote control (SD card)
- Make it more ergonomic

▶ At mid-term

- PCB prototype just received

Functionning of the remote control

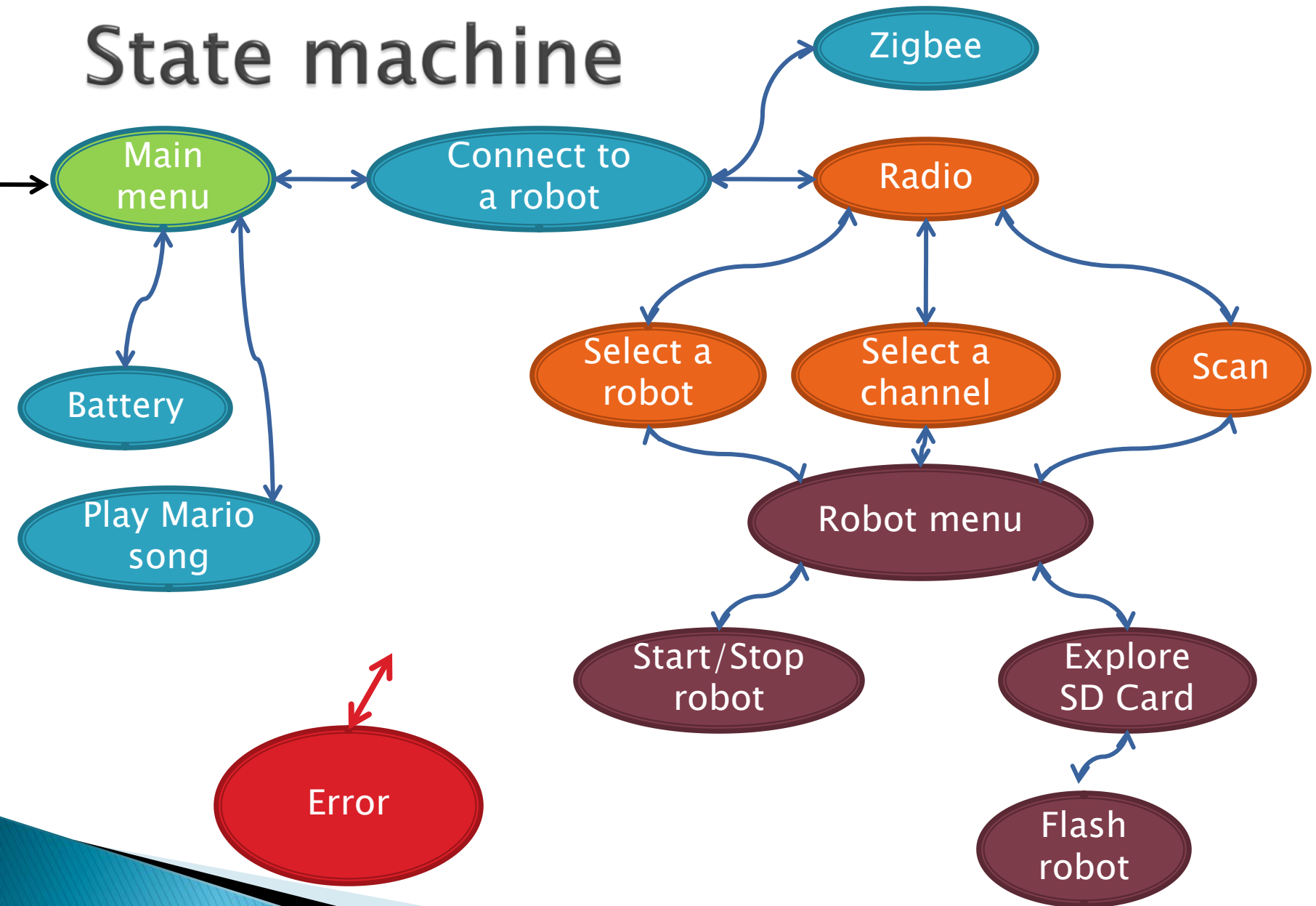


Software development

- ▶ Use of a RealTime OS : ChibiOS/RT
 - Ease the development
 - Produce well written code
 - Possibility of doing several things at the same time

- ▶ Threads
 - LCD screen display (one per line)
 - Buttons
 - State machine
 - Joysticks (when robot started)

State machine



Hardware issues

- ▶ Radio problem on the PCB prototype
- ▶ Missing 25mOhm resistor to check battery state
- ▶ ACI workshop closing during one month

Mechanical integration

- ▶ Sony : same controller for almost 20 years



Source: G. Cuendet's presentation



Source: <http://media.moddb.com>

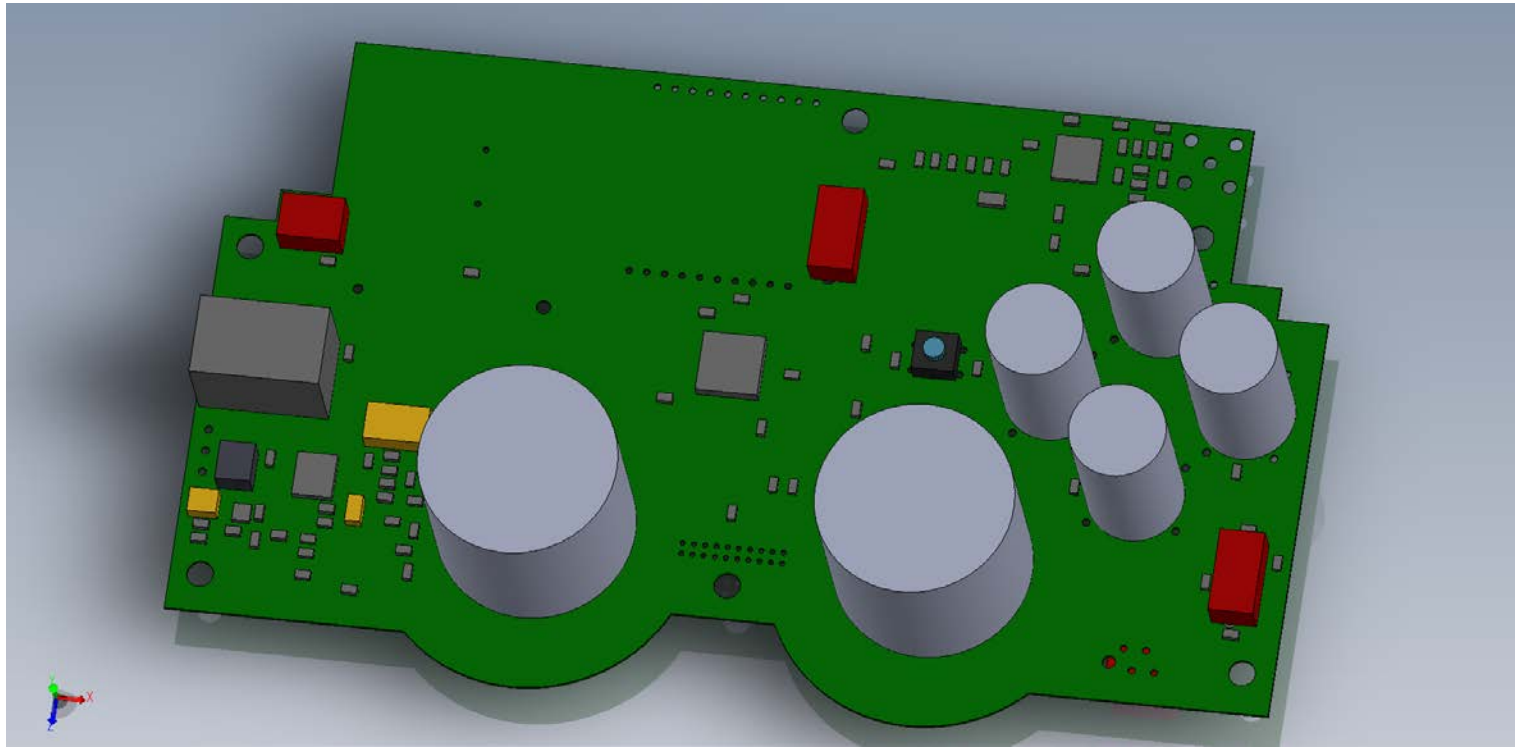
Mechanical integration

- ▶ Ergonomics
 - SolidWorks design and 3D printing



Mechanical integration

- ▶ New PCB in production



Live demo

- ▶ Let's flash the salamandra and play with it a little !

Thank you for your attention!

- ▶ Do you have any question?