

KISS
Keep it simple and stupid

PM-ROBOTIX

Recycling, simple ideas

= being able to drive straight ;) ...

<http://www.assembla.com/wiki/show/pmx>

FR

- TriP** Baptiste BOILLEY
- Christina** Christina EDLMAIR
- Cho** Christophe CHAUDELET
- Ricardo** François ADNOT
- Faz** François KARMAN
- Chaff** Guillaume MAILLARD
- Sandre** Sandra CHAUDELET
- Dudu** Stéphanie DUMOULIN

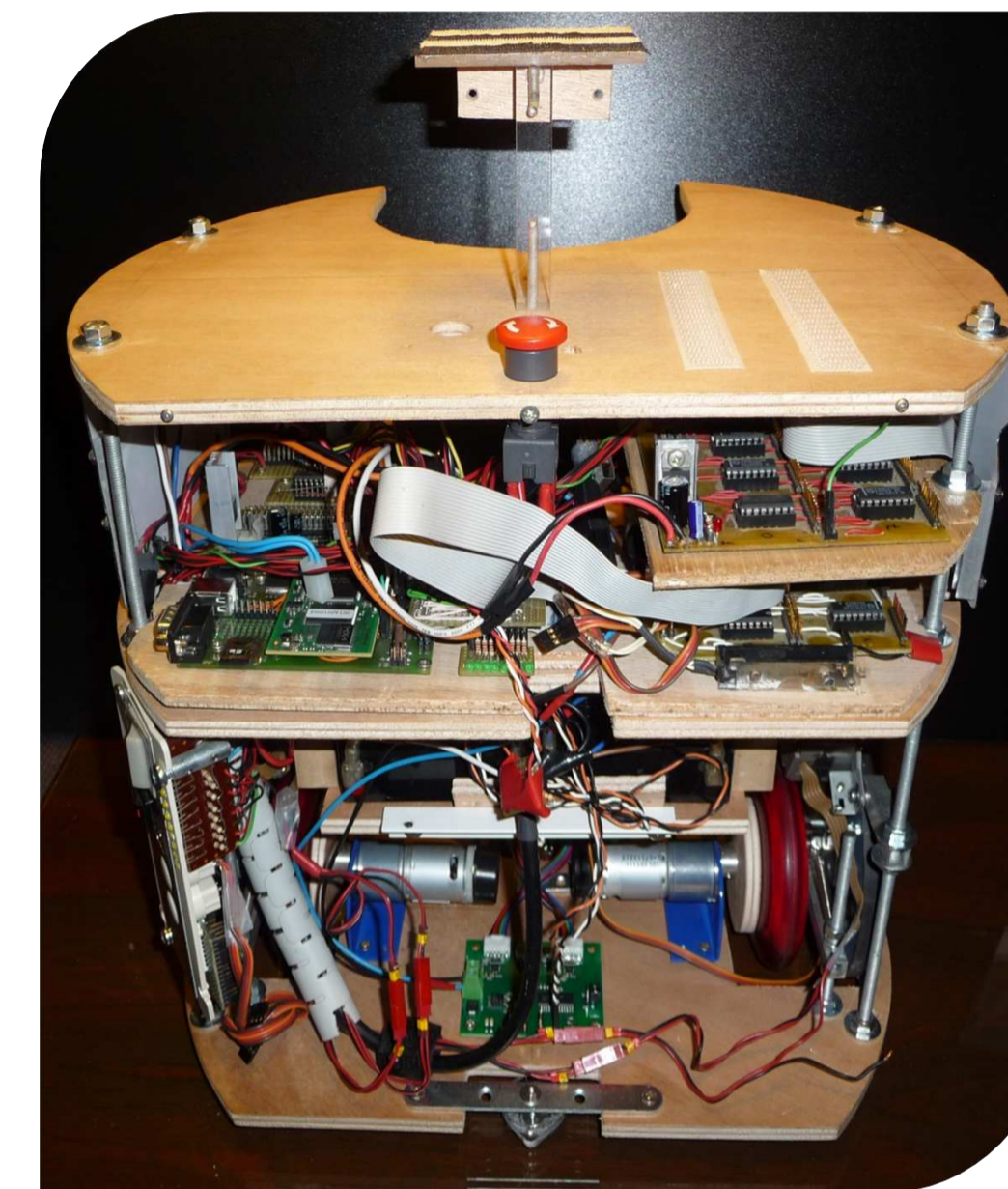
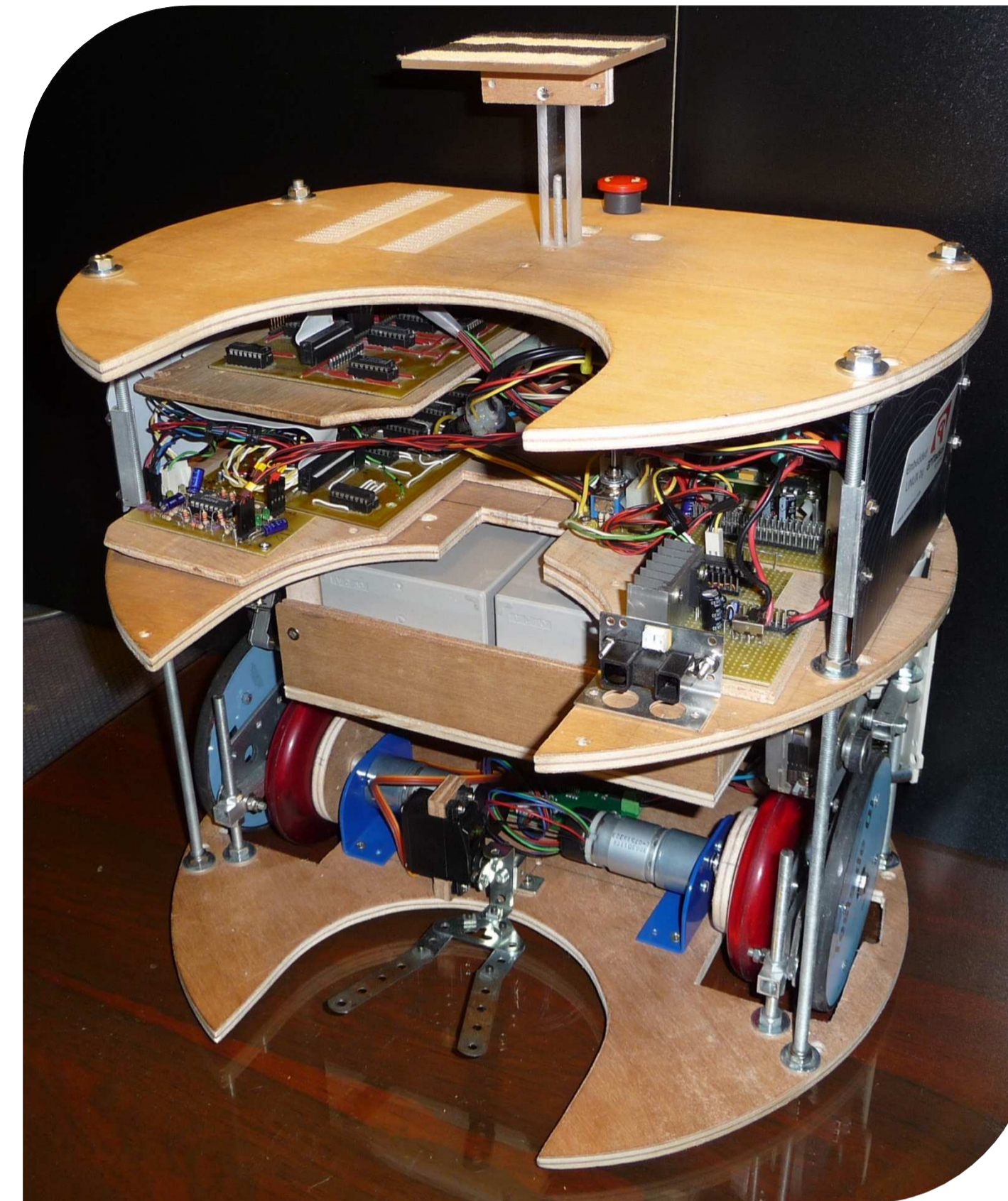
PROCESSOR

www.armadeus.com



ARM 200MHz, FPGA (SPARTAN3E), RJ45, I2C, ADC/DAC, GPIO, ...

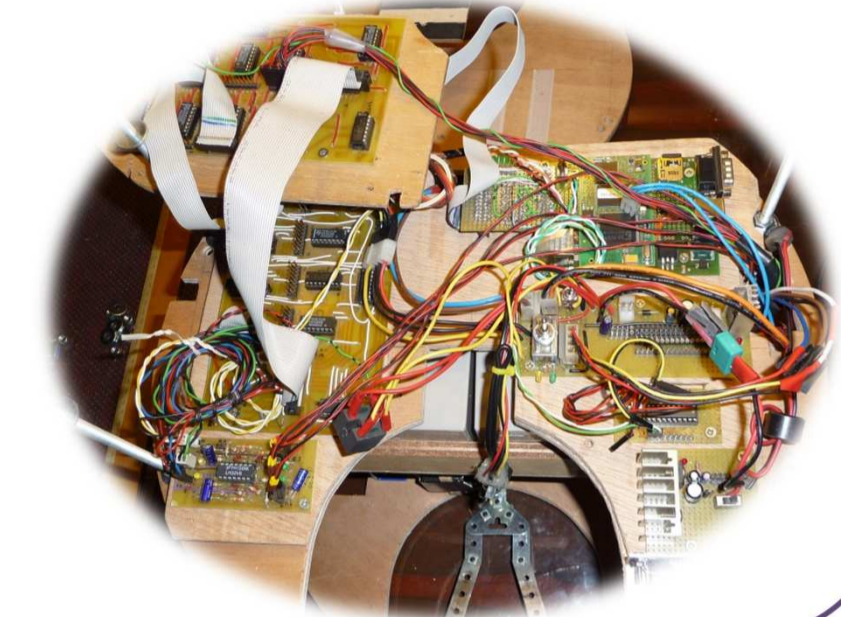
To spend money and own bugs !



ELECTRONIC «home made»

- PWM
- MUX/DEMUX

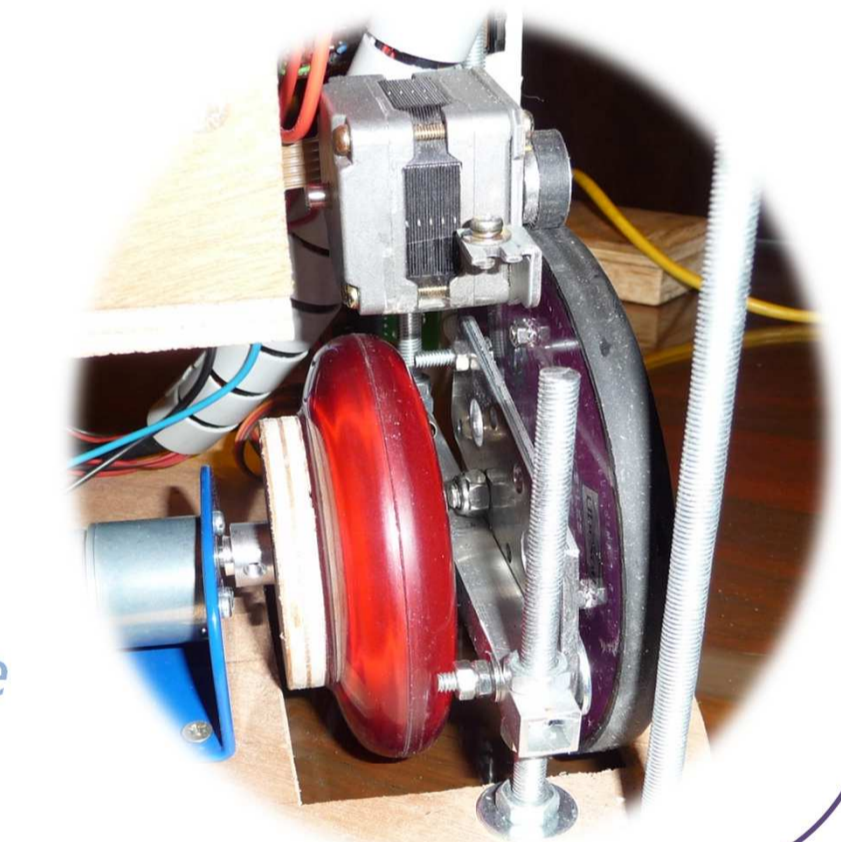
Less SMD as possible ...



2 ADDITIONNAL POSITIONNING ENCODORS

5'1/4 floppy disk Stepper motors

They still work, but are subject to interference



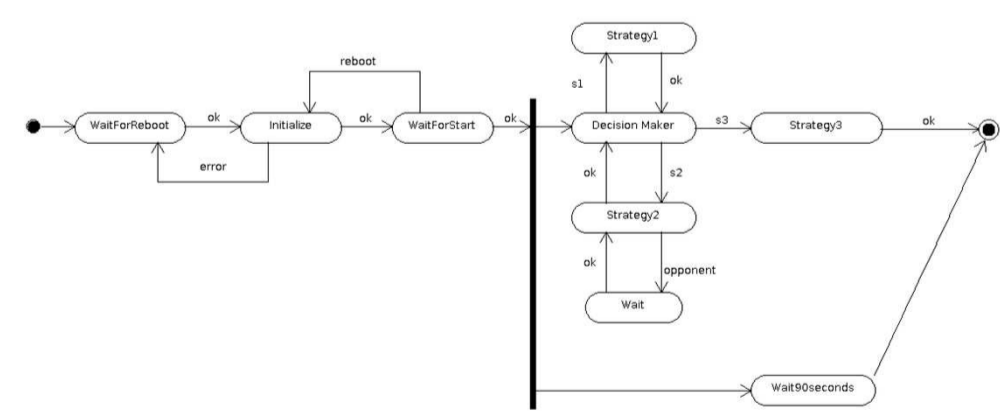
IA

TriP where are you ?

□ C++, 3 threads :

1. Actions
2. Sensors
3. Time keeper

□ state chart:



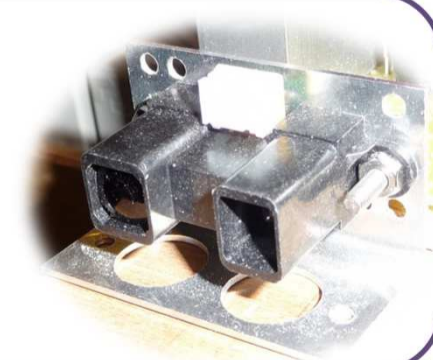
OS

Linux 2.6.29
XENOMAI Real Time Kernel

Not so simple... !

VISION SHARP GP2

I can see you... !



MECHANICS

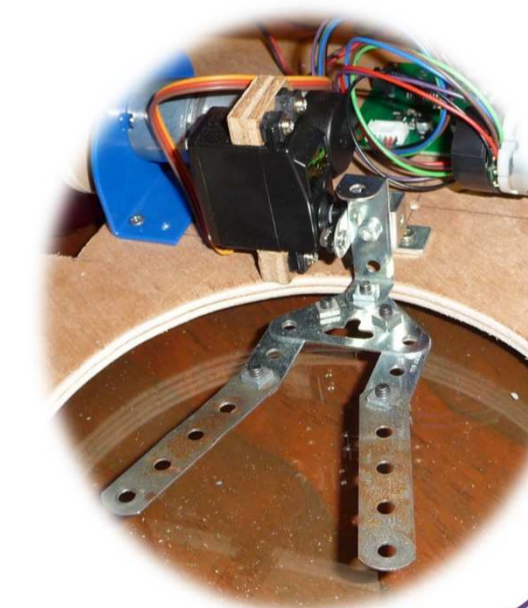
- wood, and MECANO
- rollers (wheels + ball bearing)

It rolls without forcing

Coins catcher

- servomotor

Simple, effective ?



Control Panel

Very old one

Star Wars Style !



BATTERIES

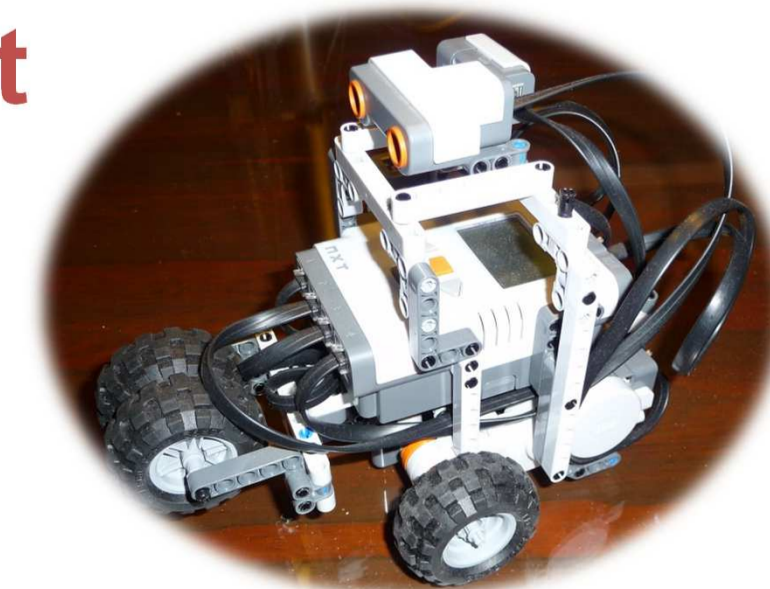
Lead, 4Ah

Make it heavy!



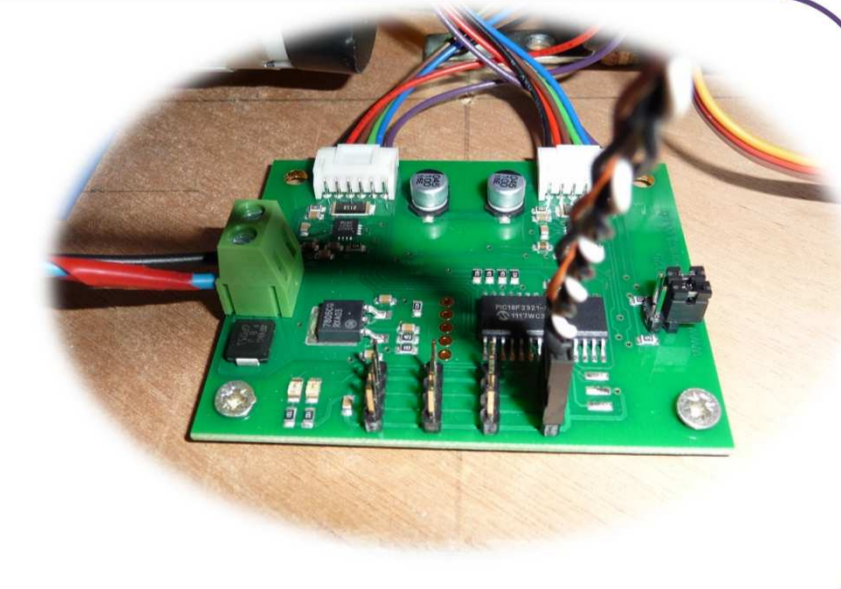
Secondary Robot NXT Lego MindStorm

Leave it in its package!



MOTOR CONTROL

- MD25 (I2C managed)
- EMG30 (Motors + encoders)



THANKS :

- www.armadeus.com
- www.yuasa.fr
- www.gotronic.fr
- www.metashop.fr

