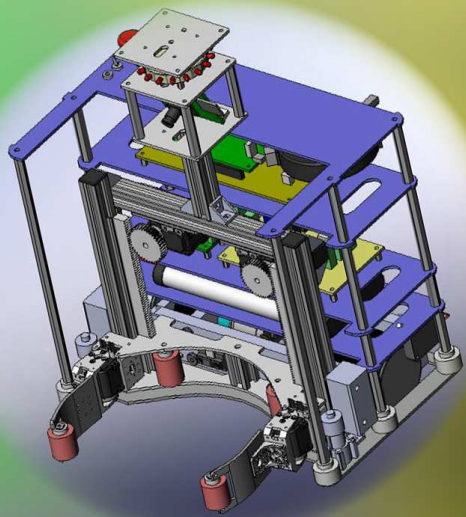
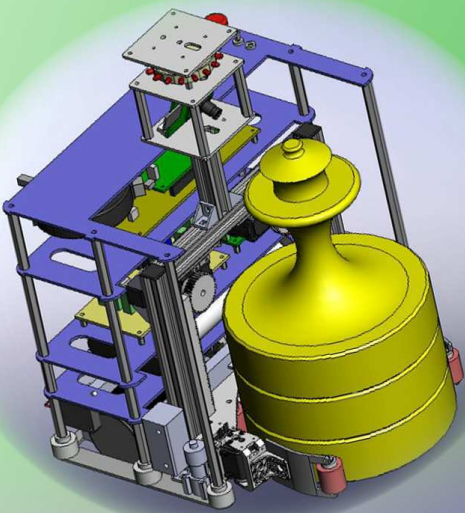




Moving



The robot moves with two CC motor FAULHABER. They are bonded in position (x, y, alpha) by free wheeling encoder (managed by an FPGA), assisted by a microcontroller PIC32. The power is provided by two 12V NiMh accumulators. Then power is distributed to the rest of the robot.

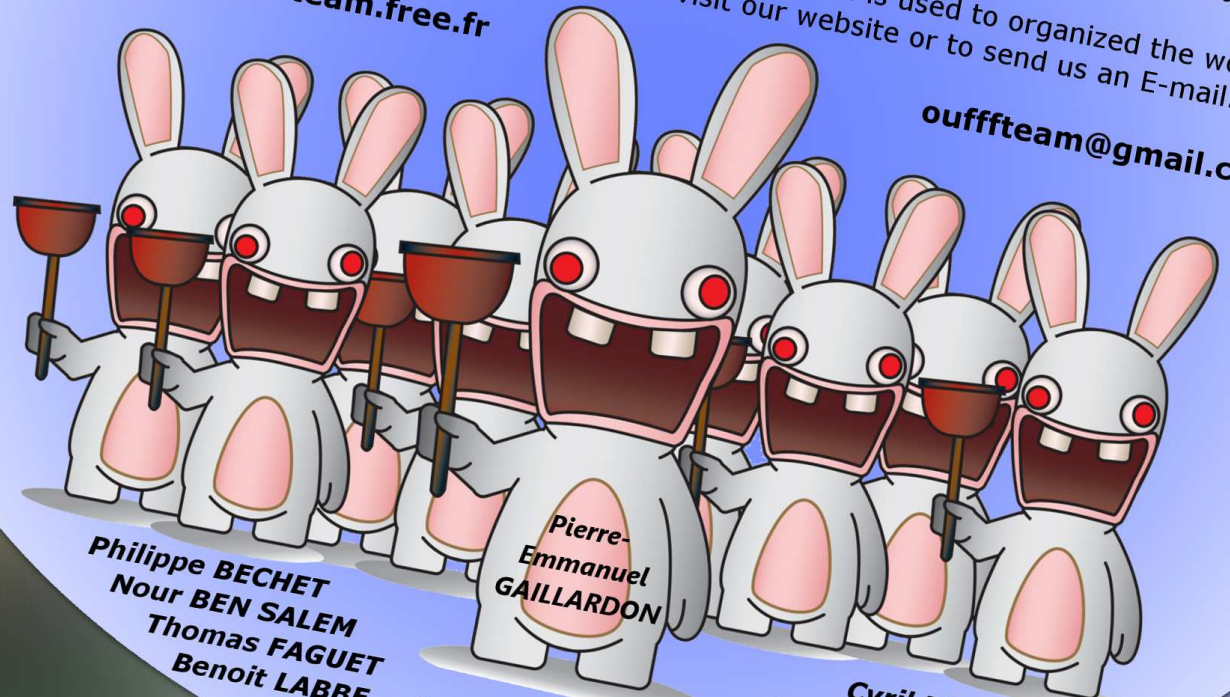


The association

The Ouffteam was born in 2007. Mainly composed of young engineers from CPE Lyon, this is the second year the team takes part in this competition. After three years of development and adjustment, the goal of this year is to validate all the work done since the creation of the club. Scattered throughout France, a website and a forum is used to organized the work. For further informations, feel free to visit our website or to send us an E-mail.

<http://www.ouffteam.free.fr>

ouffteam@gmail.com

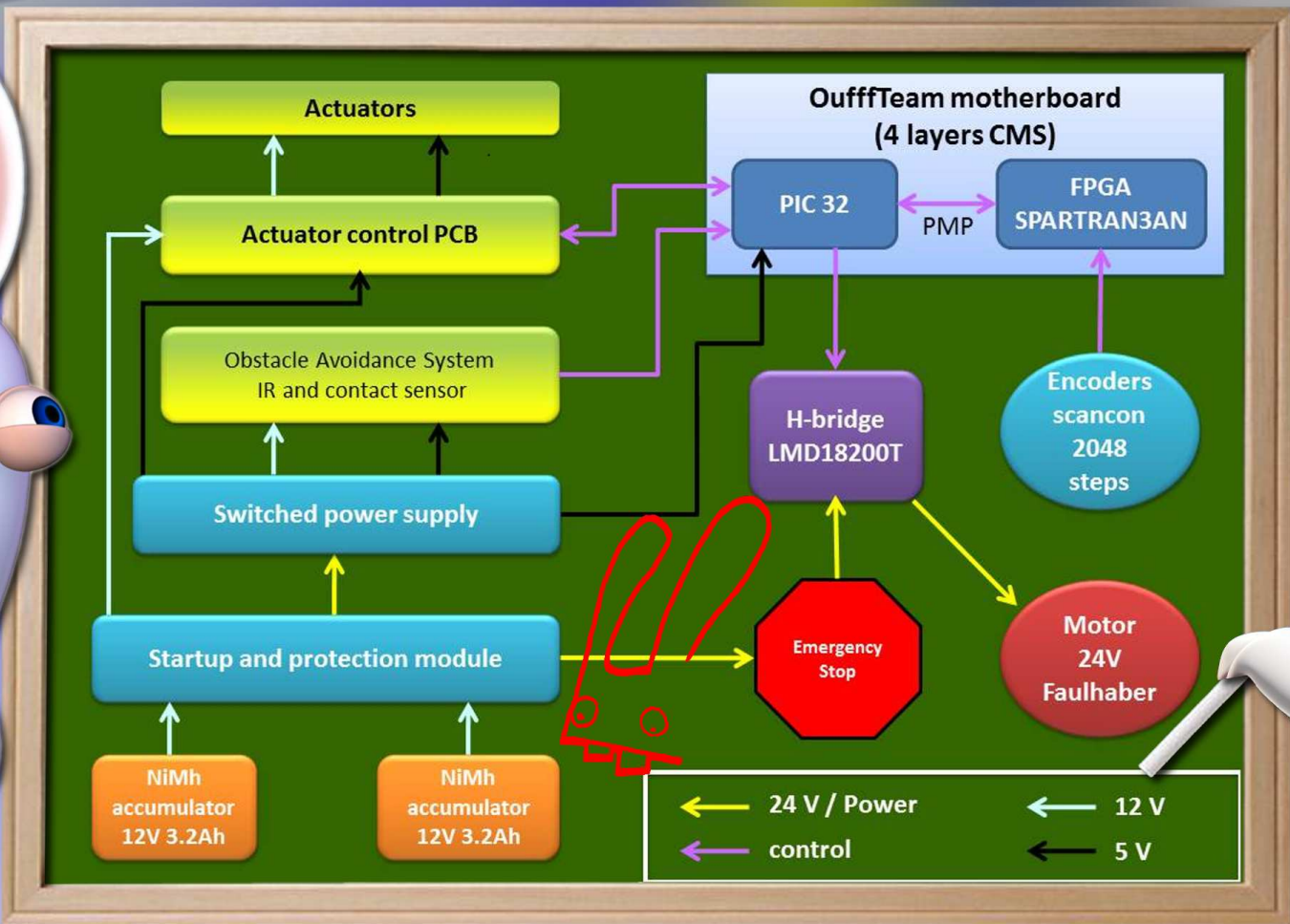


Philippe BECHET
Nour BEN SALEM
Thomas FAGUET
Benoit LABBE

Pierre-Emmanuel GAILLARDON

Benjamin MINGUEZ
Anne-Sophie PUTHON
Rémi SERVE

Cyril BEGUET
Laura EXPOSITO
Patrick GONZALEZ
Noé MURAT



The robot figures

- 2 x 20W : this is the power of our motors,
- 4 years : the age of the association,
- 11 : number of members,
- 1000 : number of kilometers driven by the member during "days of robotics",
- 30 000 : this is the amount of lines needed to move the robot,
- and millions of neurone during long days of robotics.

The strategy

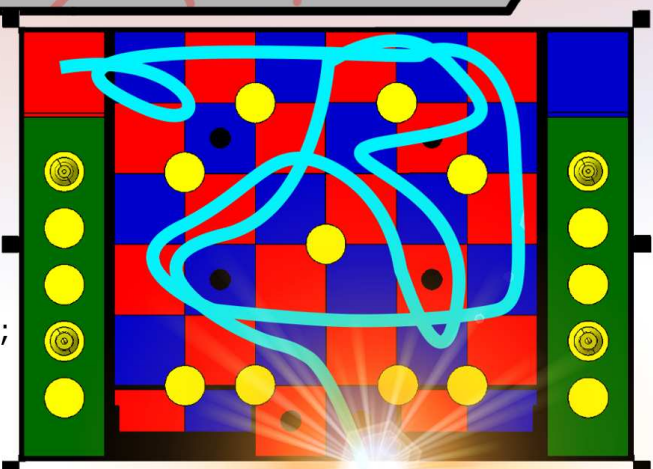
Our startegy is split into two parts:

The first objective is the following :
The robot moves to the dispensing area,
lift a pawn and drop it off on a square of the team color.

The second objective is to take several pawns.
The mecanics has been designed to stack pawns
Once the pawns are stacked, they are dropped off on square of the right colour.



howto move:
Turn (right),
Turn (left),
Go (staight forward),
Turn(back),
Shout out (bwaaaaahhhhhhhhhhh);



A.I.

The intelligence is located on a PCB developed and programmed by the Team. It is based on a microcontroller PIC32. A realtime OS, μ C-OSII, is used to calculate the displacement of the robot and to realize the interface with the hardware.

