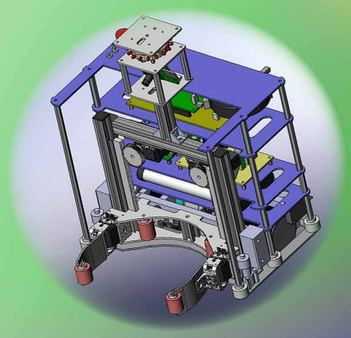
Ouffteam

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 distibuted to the rest of the robot.

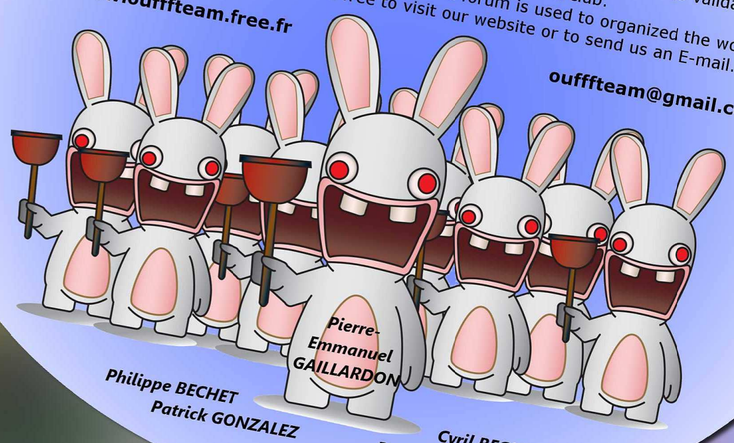


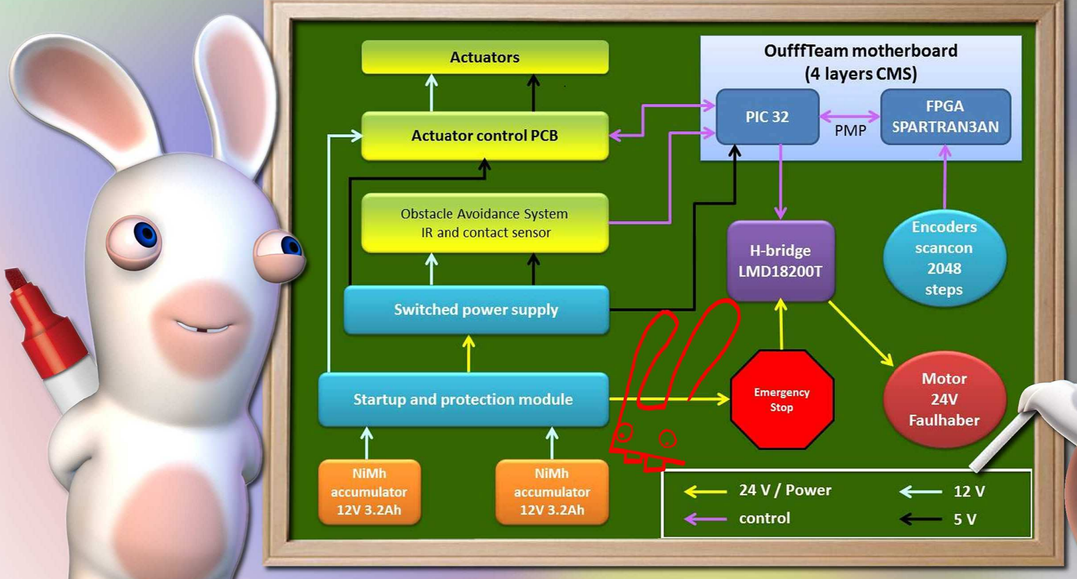
The association

The Ouffteam was born in 2007
Mainly composed of young engineers from CPE Lyon,
this is the third year the team takes part in this competition.
After four 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





A.I.

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

The strategy

Our startegy is divided into two parts:

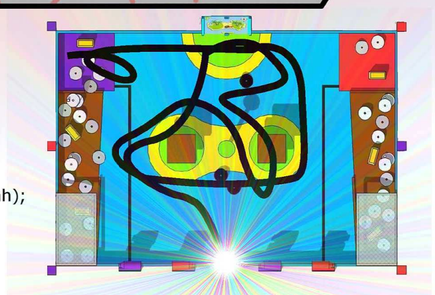
The first objective is to use our articulated arms (with suckers) to store the coins and bullions into the captain's room.

If we have enough time,
we will try to throw the bottles into the sea and discover the treasure map at the end of the game.

And as we are friendly pirates,
we will not attack the competitor's ship

howto move:

Turn (right),
Turn (left),
Go (staight forward),
Turn(back),
Shout out (bwwaaaaaahhhhhhhhhhhh);



The robot figures

- 2 x 20W : this is the power of our motors,
- 5 years : the age of the association,
- 6 : 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.