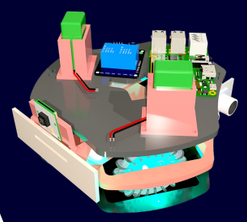
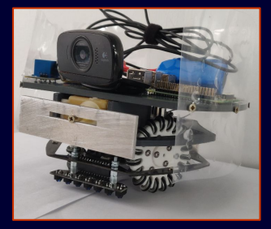
GalaXess Goal

MBapBot

Our Robots





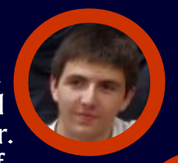
During the designing process

Our Team :

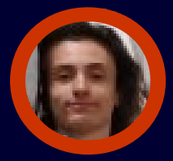
LEO

Main Programmer, Work on in-game displacement and robot's strategy.

ESTEBAN



Our great builder and 3D designer. Creator of the structure.



LAETITIA

Robot - communication And marketing at it's best

ARNAUD

Image computing and camera detection The eyes of our robots.

THEO

Captain Work on interfacing and electric component

Teachers:

M. METREF

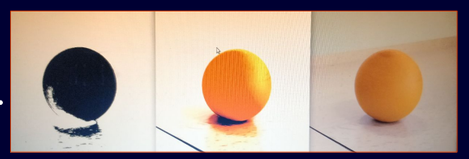
M. VERDIER

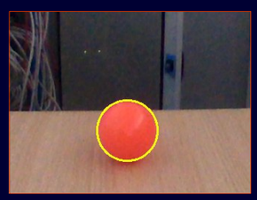
Hardware Features

- Bots controlled with Raspberry pi
- USB camera for image capturing
- Kicker powered with 9 volts batteries and relay
- Proximity sensor, gyroscope, leds and beepers, line detector for displacement and positionning.

Software

- Code written in python, libraries compiled in C
- Image processing for ball detection made from OpenCV library.
- Displacements and embedded systems are controlled in python, with a library that uses a customised API, MetaBotAPI from Rhoban Team.
- Raspberry controls the kicker with GPIO. The robots have their own motherboard and communicates with the Raspi by serial port





Real time Processing using masks and OpenCV

Enjoy !

General

Bonjour ! We are a french Soccer team from Pau (South West of France). Our team is composed of five High School student from our robotics team GalaXess, and our European section (SESAA).

For some of us, it's not the firt time we participate in Robocup, but it's our first time in this league. Working on this project was a great occasion to learn a lot of new things, and it's still a source of fun, knowledge and experience.

Feel free to ask questions we are available to help you sharing what we know !

RHOBAN
THE ROBOT WORKSHOP

RoboCup2019
2-8 July 2019
Sydney | Australia

Région Nouvelle-Aquitaine

ministère éducation nationale

Lycée Saint-Cricq

PAU Capitale humaine

SESAA