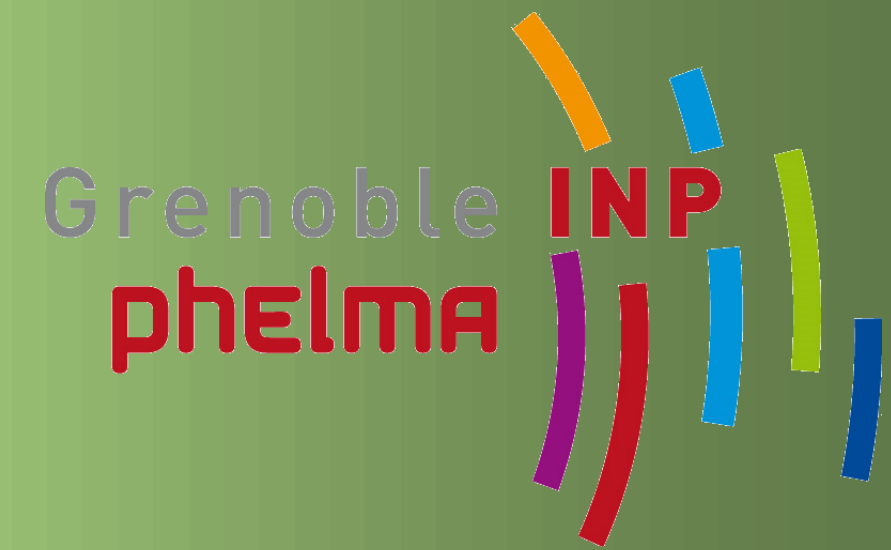




PROJET N°6

TRACKING THE POSITION OF ROBOT

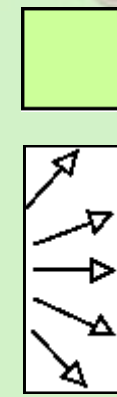


Why ?

The Phelma Robotronik Club needs to know the enemy robot's position during the « Coupe de France de Robotique ». Therefore, we have devised a system to track the enemy's position !

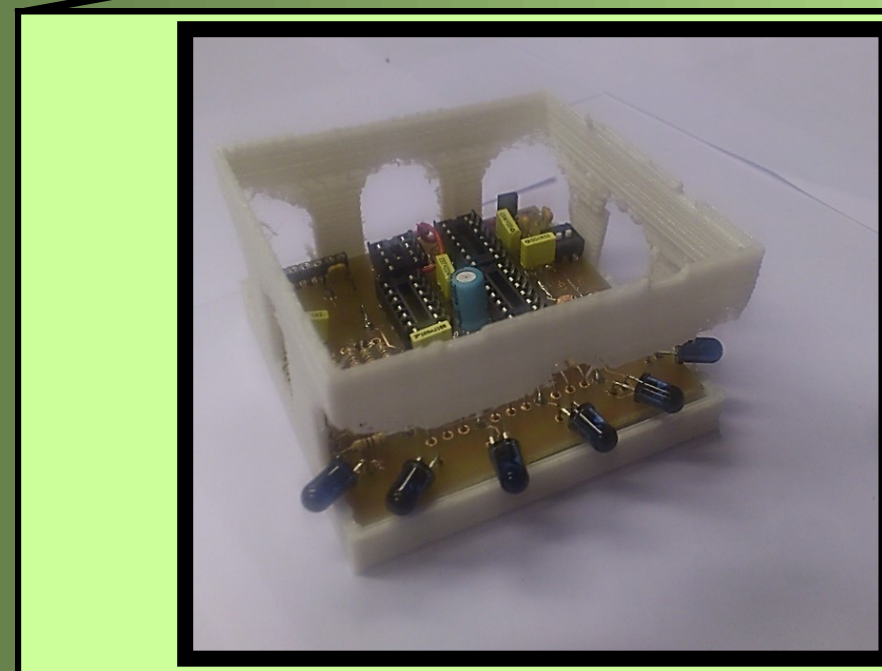
How ?

3 turrets with fixed positions.
Emission of unique ID using IR

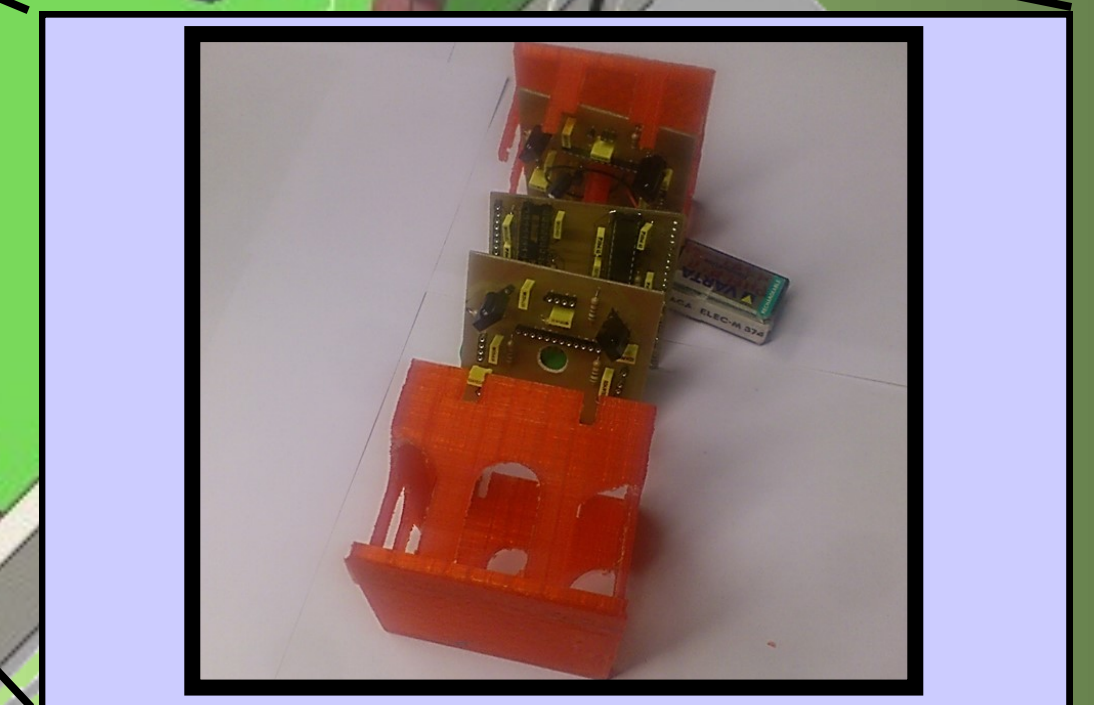


Enemy bot (360° reception using 16 sensors).
Transmission of position using zigbee protocol.
Robotronik bot.

Emission



Reception



The playing field



- 1.The microcontroller (PIC) generates the ID and the carrier.
- 2.The IR LED emits the unique ID (one per turret)

- 3.The IR signal is picked up by 16 IR receivers
- 4.The position is calculated by the PIC
- 5.The position is transmitted by an Xbee