

Funded undergraduate “Titulaciones o Investigaciones dirigidas” (Spring Semester (August) 2012)

Topic: *Autonomous robotic navigation with digital compass
and gyroscopes.*

A Pioneer 3-DX robotic platform is to be equipped with a digital compass and single axis gyroscope to aid in its ability to localise itself in an environment.

The work will require an interface to be built, allowing the compass, gyroscopic and vehicle positional data to be accessed by the robot's computer. Algorithms which combine this information for the robust position estimation of the robot will then be implemented and tested.

Skills required: Interfacing via ethernet; programming in C or C++; Ability to coordinate and carry out experiments to demonstrate software.

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