

## Service Robotics



ECTS  
6 crédits



Hourly volume  
50h

### Introducing

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### Description

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### Objectives

At the end of this module, the student would be able to explain the main components of a robot service and to say in which way it differs from industrial robotics; he/she will know the main concepts in humanoid robotics and why it is difficult to control a walking robot. His/her knowledge will include the main notions in jointed robotics: direct and inverse kinematic models, dynamic model of the robot, trajectory generation and stability of a bipedal robot.

The student is supposed to be able to model a jointed robot, to understand its technical components and to analyse the functioning of a service robot in its domestic or professional environment.

### Necessary prerequisites

Matrix theory, Linear control

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### Évaluation

L'évaluation des acquis d'apprentissage est réalisée en continu tout le long du semestre. En fonction des enseignements, elle peut prendre différentes formes : examen écrit, oral, compte-rendu, rapport écrit, évaluation par les pairs...

### Practical info

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### Location(s)

 Toulouse