



Ana and Helena Pioneer robots

Mobile urban service robot aimed to perform navigation, human robot interaction and package delivery tasks. Navigation is based on the skid steer Pioneer 3AT platform, with a 3D lidar and stereo camera for obstacle detection. Human robot interaction is based on a pan and tilt camera, status feedback lights, text-to-speech software, a microphone and a touch screen.

Key Features

- Loquendo text-to-speech software with english, spanish and catalan languages

Possible Applications

- Multi robot systems
- Human robot interaction
- 2D/3D navigation in urban environments
- Teleoperation



Access information

Corresponding infrastructure	Universitat Politècnica de Catalunya IRI
Location	C/ Llorens i Artigas 4-6, 08028 Barcelona, Spain
Unit of access	Working day



Technical specifications

Connectivity	Onboard router for internal network with wi-fi and 3G connectivity
Sensors	One IMU sensor, One GNSS receiver
Optical Sensors	One Lidar Velodyne Puck VLP16, One stereo camera Zed
Platform	Skid steer mobile platform Pioneer 3AT
Battery	Battery with up to 5h operation time and 10h charge time.
Dimensions	50 (W) x 65 (L) x 100 (H) cm
Weight	30 kg
Computer	One onboard computer and an external laptop for monitoring
Software	ROS enabled
