



Teo robot

Teo is a robot aimed to perform 2D Simultaneous Localization And Mapping (SLAM) and 3D mapping. Is designed to work both in indoor and rugged outdoor areas. To perform these tasks, the robot is build on a skid steer Segway RMP400 platform and provides two 2D horizontal laser range sensors, an inertial sensor (IMU), a GNSS receiver and a homemade 3D sensor based on a rotative 2D vertical laser range sensor.

Key Features

- One homemade 3D laser based on Hokuyo UTM-30LX

Possible Applications

- Multi robot systems
- 3D mapping
- SLAM
- Navigation
- 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
Platform	Segway RMP 400 platform. Maximum speed of ~1m/s
Sensors	Two lasers Hokuyo UXM-30LX, One IMU sensor, One GNSS receiver, One homemade 3D laser based on Hokuyo UTM-30LX.
Battery	up to 3h operation time and 8h charge time
Dimensions	80 (W) x 140 (L) x 130 (H) cm
Weight	about 110kg
Computer	Two industrial onboard computers and an external laptop for monitoring
Software	ROS



Additional information

<http://wiki.iri.upc.edu/index.php/TEO>