



PAL Robotics Pyrène

Two human size humanoid robots in a fully equipped experimental room. LAAS has a long time experience in humanoid robot motion planning and control. After having demonstrated whole-body motion generation capabilities on HRP-2, LAAS is now developing new algorithms to enable physical interaction of humanoid robots with their environment and with humans. The new robot robot Pyrène constructed by Pal Robotics based on the experience of LAAS is powerful and designed to be torque controlled.



Key Features

- Advanced motion-planning and motion-generation software
- harmonic drive reducers
- Large experimental room reproducing parts of the environment of an industrial site. The experimental areal is fully covered by MOCAP

Possible Applications

- Physical interaction
- Factory of the future
- Humanoid robotics and biomechanics
- Motion planning
- Whole-body motion generation

Access information

Corresponding infrastructure	Centre national de la recherche scientifique The Department of Robotics of LAAS
Location	7 Avenue du Colonel Roche, 31400 Toulouse, France
Unit of access	Working day



Technical specifications

CPU	i7 (hyperthreaded)
Motor max torque	300 Nm
Motor max rotation speed	56 RPM
Bus	last generation EtherCAT bus
Vision	RGBD
DoF	32
Height	1.75m
Sensors	6 axis IMU, force sensors in feet and wrists, torque sensor at each joint , position encoders at the level of motors and joints
Weight	100kg

Additional information

Additional example of applications may be found [here](https://www.laas.fr/public/en/robots-platform)
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