

# **Pipelines**

In recent years, the Centre Borelli, in collaboration with its hospital and industrial partners, has implemented a number of pipelines designed from scratch by the laboratory's researchers.



## What are pipelines

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The pipelines are measurement chains designed by the researchers, starting from the measurement in the field (thanks to sensors and dedicated interfaces) to the storage on secured databases, through the design and development of efficient and reproducible algorithms for data processing and ergonomic analysis of the results.

#### SmartCheck system

The SmartCheck system is a posture and locomotion quantification device designed and developed by the Centre Borelli and deployed in several hospital departments.

#### SmartRea system

The SmartRea system is an anesthesia monitoring device that provides a large number of physiological variables in the operating room.

#### Satellite Stereo Pipeline

S2P is a processing chain developed at the Centre Borelli, in collaboration with CNES, which allows the estimation of 3D information from pairs of stereo images taken by satellite.

#### SmartFlat system

The SmartFlat system is a fully instrumented apartment that aims to study certain neurological disorders around patients' ability to follow instructions and perform complex tasks.





#### SmartArm system

The SmartArm system is developed with the Hospital Cochin and aims to quantify and monitor the rehabilitation of upper limbs using inertial units.

### **IKKY** prokect

The IKKY project (Integration of the cockpit and its systems) is a research and development project whose aim is to prepare and develop the innovative functions and systems of the cockpits of the...









