Dani Martínez
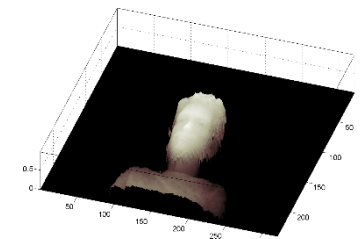
Robotics and Signal Processing Research Group (GPSR) - UdL
http://robotica.udl.cat

IATI - UdL

Lleida, 27 April 2017

- Robotics and Signal Processing Research Group

  – Design and construction of structures and mechanical systems for robotic platforms.

  – Rapid prototyping techniques for robot development by using multiple 3D printing methods.

  – Design and implementation of own-made electronic boards for embedded processing.

  – Development of new applications based on computer vision.

  – Design and development of algorithms and high level control systems for robotic platforms.

  – Research and development on robot-assisted agriculture methodologies.
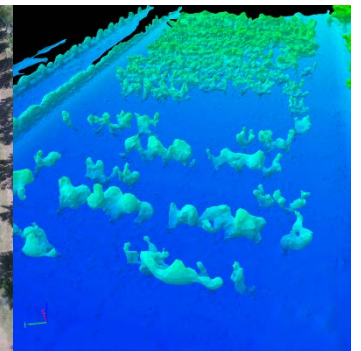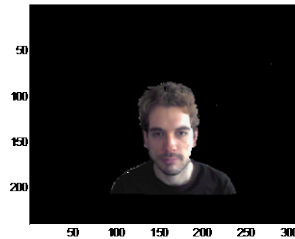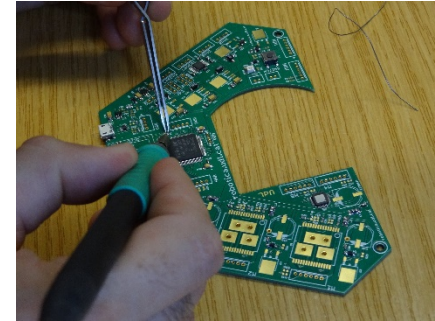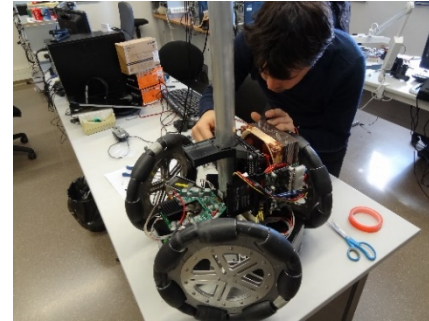
– SIGVOL Project (UdL-UB): Signal enhancement for chemical instrumentation: applications in volatile metabolomics and mobile robotics olfaction.

– Mobile robotics for Ambient Assisted Living. Assistant Personal Robot (APR).
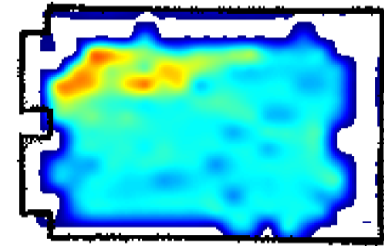
- Assistant Personal Robot 2 (APR-02)
  - Autonomous navigation.
  - Face and voice recognition.
  - Ambient conditions awareness.
  - Embedded walk-helper function.
  - High-mobility control (holonomic).
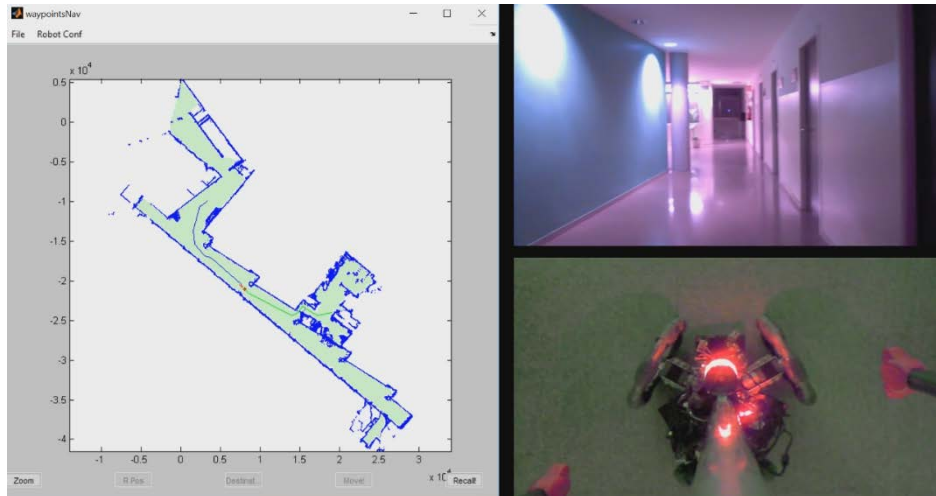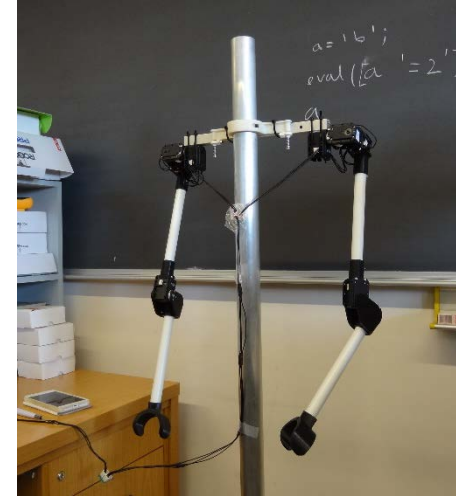
- Signal processing for Ion Mobility Spectroscopy: Biomedical fluid analysis and toxic substance detection. (SMART-IMS), **MICINN 2012-2014**.

- Design and development of a robotic system capable of identifying and recollecting individual fruit. ***University of Lleida and Indra S.L.*** **2011-2014**.

- Improvement of the individual autonomy of people with disabilities by the integration of a high mobility Assistant Personal Robot at households. **Recercaixa 2014-2015**

- Accessibility projects for disabled people to Information and Communication Technologies (ICT):
  - **HeadMouse**
  - **VirtualKeyboard**
  - **Remote Eye Movement (REM)**

- Academic fields:
  - Electrical and Industrial Engineering and Automatic Control.
  - Industrial and Mechanical Engineering.
  - Computer Science Engineering.

- Academic positions:
  - Bachelor's Degree students.
  - Master's Degree students .
  - PhD students.
  - Postdoctoral researchers.

5. Interests

- Interests on R+D+i:
  - Assistive technologies
  - Ambient Intelligence Systems
  - Mobile robotics
  - Sensors systems
  - Computer vision. (RGB-D cameras)
  - Information and Communication Technologies (ICT)
  - Agricultural Robotics and Automation

CONTACT

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