Robotic and Computer Tecnology Group (RTC):
USB Embedded Systems

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Neuromorphic vision sensor USB interface

- Silicon retina (DVS128): Institute of Neuroinformatics – ETH Zurich.
- USB Interface:
  - Analog Bias Settings.
  - Information Monitoring.
- Host Interface: jAER
Neuromorphic vision sensor USB interface

- USB Interface:
  - USB High-Speed interface (480Mbps).
  - Analog/Digital Bias Settings.
  - Information Monitoring.
- Host Interface: jAER
Retinas with lenses
Wireless sensor networks for logistics management

• Embedded systems for workers guiding through a warehouse.
• Wireless xbee 2.4GHz distributed network.
• Milled enclosure for Display, leds and user buttons mounting.
USB interface for smart recycler beans

- Interfaces a heterogeneous set of sensors with an embedded computer using the USB port.
- Senses the compartments load, detect residues input, analyze its power consumption...
- Custom user software application.
FPGA designing for neuromorphic systems

- AER Node board: Includes a Spartan 6 family FPGA.
- Provides 4 high-speed serial links (3Gbps).
FPGA designing for neuromorphic systems

- AER Robot board: Includes a Spartan 3 family FPGA.
- Able for driving and sense 4 DC motors using neuromorphic AER events. Provides an USB interface for user settings and board control.