System description

The Kuka KR 60-3 arm is an industrial robotic arm with 6 degrees of freedom (DOF). These 6 DOF allow to control both the position and the orientation of its end effector. The arm can be controlled manually using a control device or can be pre-programmed using the proprietary language KRL. On top of that, the joints of the robot can also be directly controlled by an external PC using a specific Ethernet protocol. The robotic arm has been used in the projects INVERITAS and RTES-TA to hold the mockup of a client satellite.

Technical details

- **Manufacturer:** KUKA Roboter GmbH
- **Model:** KUKA KR 60-3
- **Number of degrees of freedom:** 6
- **Weight:** 635 kg
- **Nominal payload:** 60 kg
- **Additional payload:** 35 kg
- **Repeatability:** ± 0.20 mm
- **Speed:** Rotational speed of the joints from 102 °/s (A 2) up to 322 °/s (A 6)
- **Working range:** 27.2 m³
- **Motorization:** Electromechanical AC motors, Power output ca. 14.9 kW
- **Interfaces:** Ethernet Remote Sensor Interface (RSI)

Application: Space robotics

Projects:

- **RTES-TA**
  Robotische Technologien zur Entsorgung von Weltraumschrott
  (10/2012 - 03/2013)
- **Inveritas**
  Innovative Technologien zur Relativnavigation und Capture mobiler autonomer Systeme
  (05/2009 - 03/2012)

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