

Robotics Toolchest

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Electronics

- * Low-cost, high-speed microprocessors
- * Vast memories, negligible cost

Servos

- * DC
- * AC
- * Stepper
- * Hydraulic

Controllers

- * Point-to-point
- * Continuous path
- * Sensor-driven

Application Software

- * VAL
- * KAREL
- * RCCL
- * and others

Position and Motion Sensors

- * Encoders
- * Resolvers
- * Compasses
- * Passive beacons
- * Active beacons
- * Ceiling vision
- * Inertial [Gyro]
- * Clinometer
- * GPS

Range Scanning

- * Ultrasound
- * Light triangulation
- * LIDAR
- * Optical flow
- * Capacitive
- * Inductive

Vision

- * Structured light
- * Stereo
- * Scene analysis
- * Template matching
- * Colorimeter
- * Bar code readers

Tactility

- * Wrist force sensing
- * Torque sensing
- * Fingertip arrays
- * Limit switches
- * Contact bumpers

Voice Communication

- * Synthesis
- * Recognition

Artificial Intelligence

- * Expert systems
- * Sensory fusion
- * Fuzzy logic
- * Semantic networks