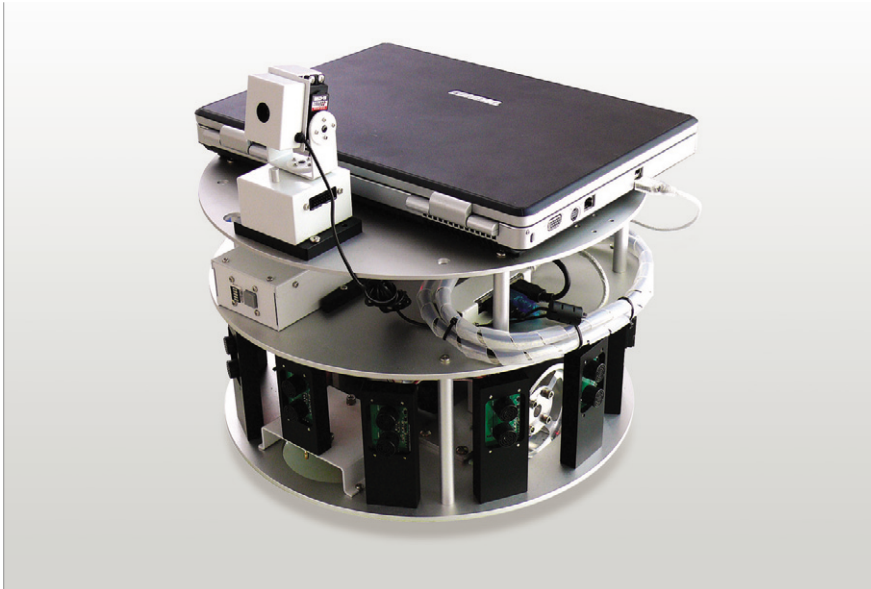


- Intelligent Robot

INTELLIGENT ROBOT DEVELOPMENT KIT

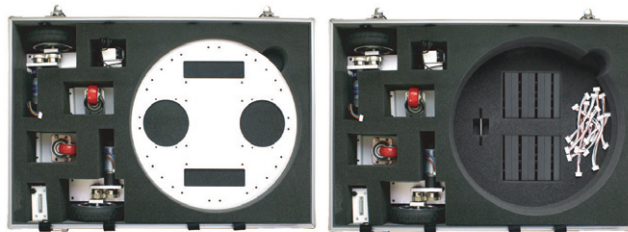
New
ED-7273

- Obstacle avoidance and autonomous traveling using eight ultrasonic sensors
- Various types of robot configuration by combining each module
- Remote control by the controller
- Precise operation by DC Servo Motor
- Flow chart based programming software



> EXPERIMENTS

- Basic experiments using Visual C++
- Basic control experiments
 - » DC Motor
 - » RC Motor
 - » Sensor (ultrasonic, infrared) control
 - » Image sensor control
- Basic robot control practice
 - » Image trace control
 - » Map generation application
 - » Autonomous driving application



> SPECIFICATIONS

STANDARD

- **Motion Controller**
 - » Motor : 2 axis
 - » Operation Mode : Closed Loop
- **Mechanism**
 - » 2-Wheel Differential
- **Battery**
 - » Lithium-Ion(2S1P), DC15V, 4A
- **Sensor Parts**
 - » Ultrasonic : 10cm to 4meter
 - » IR Distance : 10cm to 80cm
 - » IR Reception(Remocon)
- **Battle System**
 - » IR transmission/reception
 - » Damage Detection : LED (green, red)
- **Adaptor**
 - » Constant Voltage : 15V, 8A
- **OS**
 - » CPU : Intel Pentium 2GHz or over
 - » Memory : 512MB or higher
 - » Operating System : Windows XP
- **Dimension**
 - » Size of Robot : ø380 x 260(H)mm, 10kg

INTELLIGENT ROBOT DEVELOPMENT KIT

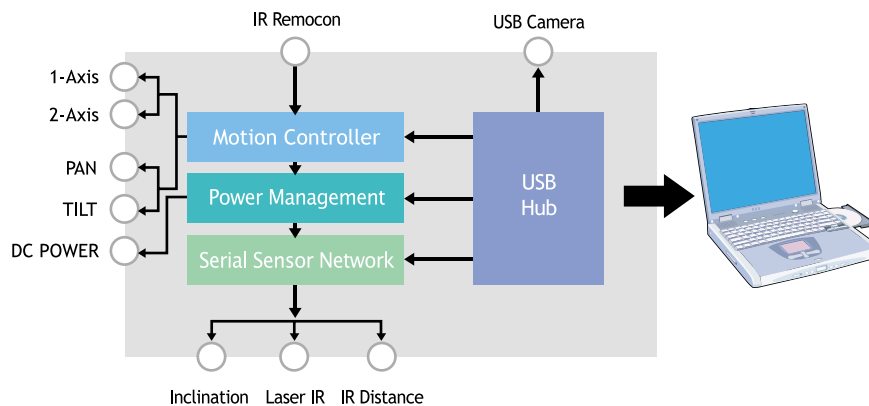
ED-7273

OPTIONS (AS RECOMMENDED)

- **Pan/Tilt Camera**
 - » CMOS Camera : 1/4-inch CMOS color Image Sensor
Video Capture : 640 x 480 pixels
30 frame Per Second
Resolution : 330,000 pixel
 - » RC Motor : 3.3kg cm Torque
Pan/Tilt RC Motor
- **Laser for IR(Transmission & Reception)**
- **Navigation Module**

ACCESSORIES

- Driver Tool Set : 1ea
- Bolt Storage Box : 1ea
- Infrared Remote Controller : 1ea
- Carrying Case : 1ea
- Software CD : 1ea
- User Manual : 1ea



- **DC Servo Motor** : The DC Geared Motor and Incremental Encoder are positioned in the center and make it zero for the rotational range when the robot rotates.
- **Power Management** : Not only manages the robot's power but also supplies power to each controller and motor
- **Battery**: Composed of Smart Battery(Lithium Ion) and designed for mounting or dismounting with the maximum capacity of 15V, 4A
- **Sensor Controller** : As a USB Type, it includes ultrasonic

sensor and infrared sensor, and delivers data of the monitored sensors to the host

- **Motion Controller** : As a USB type, it makes it possible for precise measurement through the speed or position mode and the user can check the actual moving distance of the robot except its slip based on incremental encoder
- **USB Hub** : The sensor and motion controller are composed of USB in structure, and USB Hub enables controlling the robot directly by transmitting the data to host(PC)