OMNİ-DİRECTİONAL MOBİLE ROBOT ED-7275

Features

• Covers overall basic experiments for the mobile robot using a floor detecting sensor and a front   area detecting distance sensor

• Offers basic-to-advanced training curriculum on the control of robot using embedded MICOM, 3-axis motor, IR sensor, PSD sensor and Omni-directional wheel

• Uniquely designed mechanism that has employed Omnidirectional wheel with the interval in 1200 for allowing dynamic movement in all directions

• Five IR sensors mounted to detect a specific color and send the data to Host CPU using interrupt

• Three PSD sensor mounted as basic shipped components, and capable of combining and mounting additional PSD sensor(2ea), human body detection sensor(1ea) and so on

• Provides related library source to help control the robot using Application program(C language)

• Comes with user manual covering various types of sensor adopted for the intelligent robot

• Four buttons for controlling the robot's hardware and LCD for viewing its status easily

• Downloadable through USB AVR ISP terminal

• Smart battery system that allows to check the battery life

EXTRA

ROBOT SYSTEM

• Type of Mobility

» Omni-directional

• Control Method

» Embedded Micom Based Control

• Max. Linear Moving Speed

» 50cm/s

CONTROL PART

• MCU

» ATmega128

• Motor

» Avaliable : Axis(Default 3Axis, External 3Axis)

» Motor : DC Geared Motor

» Operation Mode : Close Loop

» Encoder : Optical Incremental Encoder(26Pulse/1Cycle)

• Battery

» 4S/1P(Lithium Polymer)

» Duration: 80 minutes or slightly longer

» Motor impression voltage: below 12VDC

• I/O

» LCD : Blue LCD, 2Line x 20 character

» Button : 4ea(for input)

» LED : Power LED : 1ea, User LED 2ea

» Analog Input : 8point

» Digital I/O : 8point

• Mechanical Part

» Type of Mobility : Omni-directional

» Wheels : 3ea

» Robot's Appearance : Cylinder type

» Robot's Size : Diameter : 255mm, Height : 200mm

• Sensor Part

» Floor Detecting Sensor : IR Sensor : 5ea

» Forward Area Detecting Sensor

〉 PSD Sensor : 3ea (Front 0˚, ±30˚)

〉 Sensing Distance : 10~80cm

Option

• Smart Battery Pack (4S/2P Lithium Polymer)

• PSD Sensor

• Ultrasonic Sensor

• Human Body Detection Sensor

• Aluminum Carrying Case

• Puck(Red, Yellow, Blue : ®™40 x 60mm) : 1set

• Puck Tray [50(W) x 105(H) x 50(D)mm] : 1set

• Puck & Puck Collector : 1set

• Lance(®™12x160mm) : 1ea

Accessaries

• Smart Battery : 1ea

• Battery Charger : 1ea

• External DC Power Cable : 1ea

• AC Cord : 1ea

• Serial Cable : 1ea

• USB Extension Cable : 1ea

• USB AVR ISP : 1ea

• Program CD(including Source) : 1copy

• Experimental Manual : 1ea