Order Code - 49551
Research Robot Plutonx

The Pluton X is a popular research mobile robot. Its versatility, reliability and durability have made it the reference platform for robotics research. Unlike hobby and kit robots, It is fully programmable, and will last through years of tough classroom and laboratory use.

Computational Block: Mamba Dual-Core Computer

- Microcontroller: CPU: dual-core 2.26 GHz 32-bit Intel Core 2 Duo P8400
- Flash : Ethernet: dual 10/100/1000 ports
- USB: six USB 2.0 ports with standard connectors
- Serial: four RS-232 serial ports (two of which are RS-422 capable)
- Generic digital I/O: 32 with SPI interface
- Generic analog I/O: 8 inputs, 4 outputs with SPI interface
- Disk: 40GB solid state SATA (computer supports two SATA devices)
- OS Preinstalled and configured: Linux or Windows XP Embedded
- 2 X PC/104+ Slots
- Fire Wire : IEEE 1394

Sensors:

Rear Sonar Sensors- 3 Units

- Supply Voltage – 5 VDC
- Supply Current – 30 mA typ; 35 mA max
- Range – 2 cm to 4 m
- Input Trigger – positive TTL pulse, 2 uS min, 5 µs typ.
- Burst Frequency – 40 kHz for 200 µs
- Burst Indicator LED shows sensor activity
- Delay before next measurement – 200 µs

WIFI to UART Module : High Speed Wireless Ethernet

- Data Rate : 11M bps
- Support the STA applications in the infrastructure network
- Support the OPEN/WEP mode authentication
- Support the WEP64/WEP128/CCMP/WPI data encryption

Others:

- Rechargeable Battery: Li-Po 11.1V , 7Amp/HR
- Battery Charger
- Switching Interface
- Rework docking station
- Documentation and tutorials
- Necessary set of tool kit
- All required cables and connectors
- SD MMC card holder
- Expansion headers for GPIOs, I2C, SPI,UARTs, Power etc.
- 4 switches and 4 LED displays

Communication:

Zigbee : 60mW with Wire Antenna : 2 Units

- 3.3V @ 215mA
- 250kbps Max data rate
- 60mW output (+18dBm)
- 1 mile (1500m) range
- AT or API command set
- USB interface adapter

USB 2.0 Wired Communication
RS232 wired Communication

Indications

- Indicator LEDs
- Piezo Electric Buzzer

Development Application:

- Development Support: Eclipse
- Serial protocol based firmware for accessing robot data andcontrolling the robot via Matlab / Labview / Beagle board /ARMbased board etc

Note: Specifications are subject to change.

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