ROBOTIS R-BOT Futuristic Kitchen Assistant Instruction Manual

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ROBOTIS R-BOT Futuristic Kitchen Assistant

Specifications

1. MCU: 32-bit ARM® Cortex®-M4F @ 64 MHz
2. Supply rating
   Rating : 5.0[V], 1.0 A(3.7[V] (Li-Po 1cell), 1800mA used)
3. Standby Current : 30mA
4. Bluetooth
   : Bluetooth 5.1 compliant single-mode Bluetooth Low Energy
5. Internal I/O Device
   - Button : 4 (Port A, Port B, RESET, POWER)
   - Joystick(2-axis) : potentiometer
   - LCD : 320*240 2.4” TFT LCD module
   - MIC X 2
   - speaker X 1
   - Gyro & acceleration sensor X 1
   - IR sensor
     - TX (KEL5315C) X 6
     - RX (KDT6315A) : 5
       LED
     - 1608size blue LED : 8
     - 1608size Red LED : 1
     - Battery voltage check : 1
6. External I/O Device: USB-C Charging and firmware update
7. Dynamixel PORT : Magnetic pocosin: 1ea (4pin)

Product overview

1. This product improves fun and cognitive ability through interaction with users by using entertainment functions and sensors.
2. This product has coding function and can be used for coding education.
3. It can make various examples by combining Danimixel with this product.
4. Don’t replace battery.

5. Don’t disposal of a product into fire or a hot oven, or mechanically crushing or cutting.
6. Don’t take the product to places with high pressure

Operation method

1. Power on with POWER ON/OFF switch. (See description on page 7)
2. Use the cursor movement button to enter each menu and perform the desired function. (See description on page 7)
3. If there is no movement of a specific time, it enters sleep mode.
4. Press and hold the power on/off switch to select the power off menu and power off

Hardware description

MAIN DISPLAY Description

1. Main Menu
2. Bluetooth connection status
3. Battery capacity status indication

Hardware description

Function description of each button

1. cursor movement button
2. Back Button
3. Enter Button
4. POWER ON/OFF Button

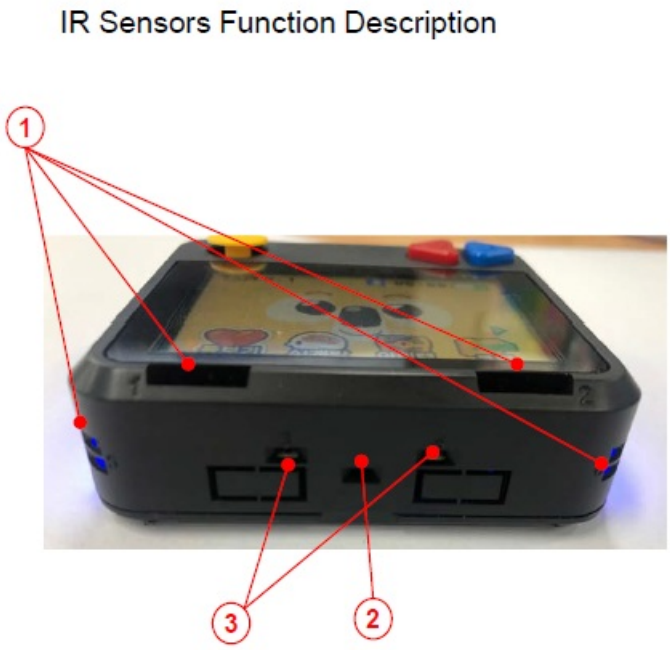
Hardware description

Detail of function

1. Speaker
2. RESET
3. MIC
4. LED indicator

Hardware description

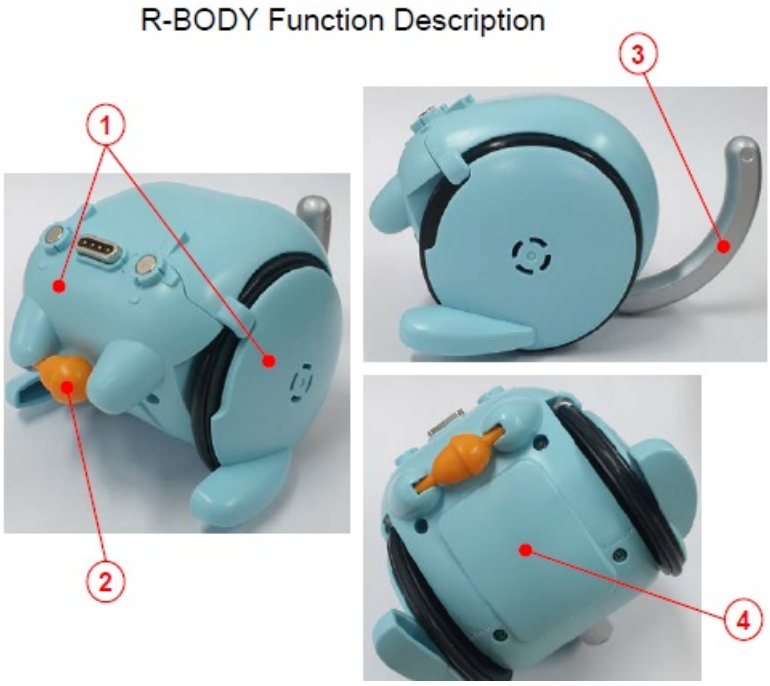
IR Sensors Function Description



1. IR sensor emitter/receiver
2. IR sensor receiver
3. IR sensor emitter

Hardware description

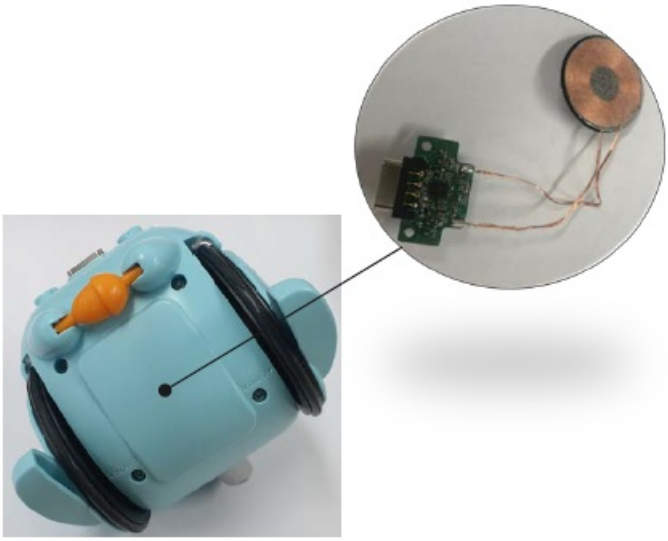
R-BODY Function Description



1. Wheel & Leg(Moter : XL330-M077-T)
2. Caster
3. Tail
4. Wireless Charging Receiver

- Stall Torque: 0.180 [N.m](at 3.7[V], 1.11[A])
- No Load Speed: 278 [rev/min](at 3.7[V])
- Input Voltage: 3.7~6.0 [V]
- Gear Ratio: 77.5 : 1
- Demension(WxHxD): 20.0×34.0x26.0[mm]

Wireless Charging Receiver



1. WPC v1.2 compliant receivers.
   : Wireless power consortium (WPC) v1.2 compliant (FOD enabled) highly accurate current sense.
2. Safety Function
    1. This product has Thermal protection. It is not possible to wireless charging when the temperature is over 75 degrees using NTC Thermistor
    2. Current Limit
        1. Maximum input current(It is the expected maximum output current during normal operation) : 500mA
        2. Over current limit(It is the hardware over current limit : 600mA

FCC

FCC Information

This device complies with part 15 of the FCC Results. Operation is subject to the following two conditions :

(1) This Device may not cause harmful interface, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for CLASS B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try correct the interference by one or more of the following measures:

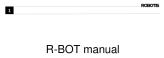
1.1. Reorient or relocate the receiving antenna.
1.2. Increase the separation between the equipment and receiver.
1.3. Connect the equipment into an outlet on a circuit different from that to which receiver is connected.
1.4. Consult the dealer or experienced radio/TV technician for help.

WARNING

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

IMPORTANT NOTE:
FCC RF Radiation Exposure Statement:
This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Documents / Resources

 R-BOT manual	ROBOTIS R-BOT Futuristic Kitchen Assistant [pdf] Instruction Manual R-BOT, RBOT, SOD-R-BOT, SODRBOT, R-BOT, Futuristic Kitchen Assistant