![Chipsmall logo]

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

4WD MiniQ Complete Kit (SKU:ROB0050)

4WD MiniQ Complete Kit V2 (SKU:ROB0050)   4WD MiniQ Complete Kit V1 (SKU:ROB0050)

Introduction

4WD MiniQ mobile robot is especially designed for learning purpose. It comes fully assembled and all your need is a PC with Arduino IDE and 4xAA battery.

This upgraded version of MiniQ 4WD Kit comes with new Arduino Leonardo controller (ATmega32u4)but also integrates such modules as 1 RGB LED, photosensitive diode, 2 infrared trasmitter, 1 infrared receiver, 5 infrared line tracking sensor, two light sensors, 5 buttons and 1 buzzer.

MiniQ 4WD offers 8 lessons for beginners ,from entry to hunting the line,obstacle avoidance, remote control. Users can easily grasp through the tutorial.Code Package download,tutorials download.
https://github.com/Arduinolibrary/Source/blob/master/Code.rar?raw=true
https://github.com/Arduinolibrary/Source/blob/master/Tutorial%20pdf.rar?raw=true

- lesson1.Get you to know Your Robot
- lesson2.Control Buzzer
- lesson3.Light Direction Indication
- lesson4.Line_follow
- lesson5.RGB LED
- lesson6.Obstacle Avoidance
- lesson7.Encoder
- lesson8.IR Remote Control

Specification

- Controller: Atmega32U4(Arduino Leonardo)
- Power Supply: 4x AA batteries or Micro-USB
- Working Voltage: 4.5 to 6V
- Driving Mode: 4WD
- Max Speed: 79cm/s
- Size: 115x110x45mm
- Weight:400g

Layout Introduction
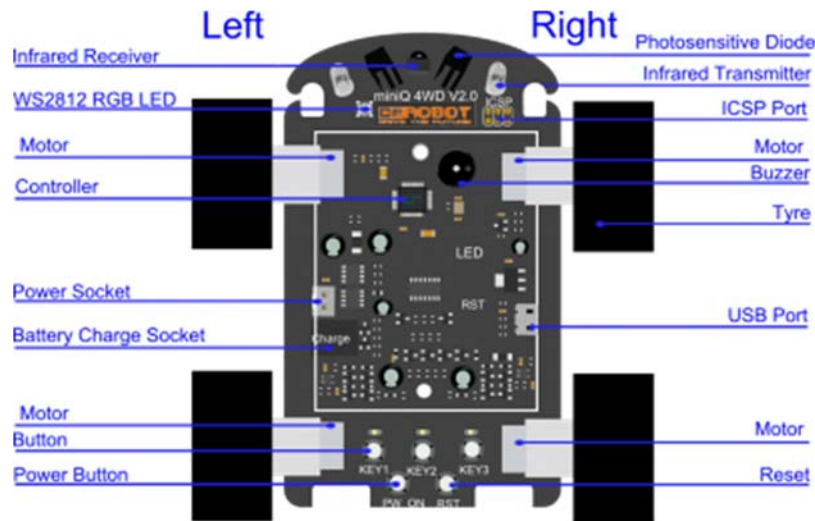
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Function about every component：

- Infrared transmitter：transmit the infrared signal, the signal can be used for detecting obstacles
- Infrared receiver：receive infrared signal, the signal can be used for obstacle avoidance
- Photosensitive diode：sensitive with the light, so it can help you get some information about the light
- Button：can be programmed for your idea
- RGB LED：you can change its color use your code, it can show as an alarm and other things you want
- USB port：download your code and let your robot talk to your computer
- Buzzer（passive）：be an alarm bell or sing a simple song
- Controller：runs your code
- Motor：can be controlled to run forward or backward, so that the car can turn left or right freely
- Reset button；Reset the robot, the program in the robot will runs again from its initiation
- Power switch：power switch of the robot
- Power port：power provided from this port
- Charge port: if your batteries can be charged,   you can charge them from this port thus they can be hold in the car
- Infrared line-follow sensor: can be used for detecting for white or black lines

Pin Mapping

- Line follow sensor：

    A0--IR0 （No.1 count from the left）
    A1--IR1 （No.2 count from the left）
    A2--IR2 （in middle）
    A3--IR3 （No.2 count from the right）
    A4--IR4 （No.1 count from the right）

    - Follow light: A5

    - Motors

    D5-- PWM control from left motor, D12--EN1 direction control from left motor
    D6-- PWM control from right motor, D7--EN2 direction control from right motor

        - RGB LED : D10

        - Infrared obstacle avoidance：

    Transmitter：D13—IRL left transmitter sensor, D8—IRR right transmitter sensor
    Receiver: D17—IRS receiver sensor

        - Button：A6

        - Encoder：

    D0--INT2 Right Motor
    D1--INT3 Left Motor

            - Buzzer

    D16(MOSI)— Buzzer