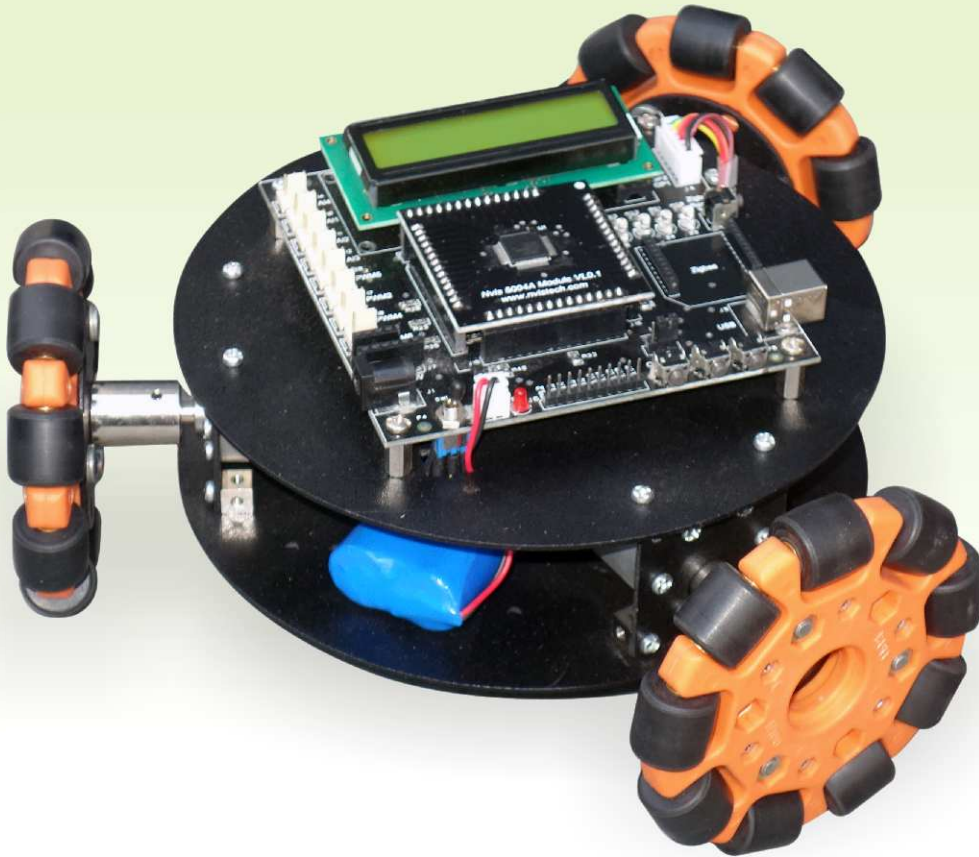




RoboCar

Nvis 3302ARM



Nvis present ARM Based Robocar. Nvis Robocar is a ready assembled unit consisting of strong chassis, coupler and three Omni wheels with 120 degree direction mounted on it. The machine is driven by DC motors which are powered by rechargeable batteries. This Nvis ARM (LPC2148) processor /Atmega128 Microcontroller Arduino based RoboCar, with 16x2 LCD display controlling and debugging of it. Robocar is designed for users to start developing smart robot which is capable of controlling with Android app software with help of Wifi Module.

Features

- ARM7 Controller based on NXP LPC2148
- Controller module is detachable
- Three Omni wheels for movement in any direction
- 16 x 2 characters LCD interface
- Master reset/restart key for hardware reset
- Three DC motor interface & control
- Switch Interface
- Expansion connectors for analog sensors
- Expansion connectors for PWM output for servo motor
- On board extra GPIOs
- On board battery charger
- On board separate +3.3VDC and +5VDC
- On board programming
- Every pin is marked in order to make work easier
- On board socket for wireless module ZigBee / Bluetooth / WiFi (optional)



RoboCar

Nvis 3302ARM

Scope of Learning

To study the:

- Microcontroller ARM processor
- Programming on ARM Processor
- 16x2 LCD Interface
- LED Interface
- Motor Interface
- DC motor interface
- Wi-Fi/ZigBee/Bluetooth controlled robot
- Multidirectional movement robot
- Learn to interface various Sensor modules

Technical Specifications

Switches	: Tact switch (4-switches)
Display	: 16 x 2 LCD
Wheel	: 100 MM glass fiber omni wheel (with bush rollers)
LED	: 4 nos. super bright green LEDs
GPIOs	: 10 nos. general purpose GPIO
Communication	: USB Interface
DC Motor Rated Voltage	: 12 VDC
RPM	: 150
Rated Current	: No load-60mA, with load-300mA
Torque	: 1.2 kg-cm
Power Supply	: 8.4V DC Lithium ion battery
Power output	: +3.3DCV,+5DCV
Interface	: Relimate connector cable
Dimension (mm)	: W270 X L 270X H 110
Weight	: 2 K-gm (approx.)

LPC2148 Controller:

Operating Frequency	: 12MHz
Flash Program Memory (Kb)	: 512
Data Memory (Kbytes)	: 8 to 40
PWM	: 4-Channels
Serial Communications	: Dual programmable serial USARTs
10-bit Analog-to-Digital Module	: 10 input channels

Included Accessories

Battery 7.4	: 1 no.
DC adapter 9V/350mA	: 1 no
Product tutorial (CD)	: 1 no.

