

iNOVA-RBT-1001 *Omni Drive Mobile Robot Platform*

Key Features

- **Omni Directional Drive** moving platform with **PID close-loop control**
- Equip with 3 DC Motors(With Encoder) & harmonic wheels
- **Fourteen IR sensors** act as floor sensor
- **Eight Analog Input Ports**
- **Sixteen RC Servo Motor Channels**
- **One RS232 Port**
- **Two I2C Port**
- Aluminum Chassis for easy customization
- **Switching power supply** for best battery power efficiency
- **40Mhz** Microchip processor
- **64K** program memory, 4K data memory
- **Easy programming and debugging using C and MPLAB IDE**
- **Compact** size Dia. $\leq 150\text{mm}$



Top



Bottom

Descriptions and Applications

iNOVA-RBT-1001 is a compact size & programmable Omni Directional Drive Mobile Robot Platform. User can program it with ANSI C with free IDE-MPLAB. The built-in IR sensor which allows the robot to navigate the environment on given path to carry out specific task.

The general applications of this robot can be used as **logistic robot**, indoor/outdoor **surveillance robot** or **RoboCup competition**.

Technical Specification

Item	Specification	
Power Supply Voltage	7-24V	
Power Consumption	4W (Without Motor)	
Processor Speed	40MHz	
Program Memory	64KB	
Data Memory	4KB	
DC Motor	12V, Rated Torque: 300g-cm, Speed: 990RPM, Encoder Resolution: 52CPR x 3	
Harmonic Wheel	3	
RC Servo Motor Channel	TTL, 25Hz (1.5ms Neutral) x 16	
Analog Input Port	0V-5V x 8	
IR Sensor	Digital Output x 14	
I2C Port	1	
UART	1	
Battery	Li-poly 7.4V 850mAH x 1	
Charger	Selectable 1-4cells, 500mAH x 1	
Dimension	Diameter \leq 150mm	

Ordering Information

Our Part No.	Description	Price
iNOVA-RBT-1001	Omni Drive Mobile Robot Platform	
Manufacturer: iNOVA Microsystems Pte Ltd #04-01, BLK 12 Lorong Bakar Batu Kolam Ayer Industrial Estate Singapore 348745 Tel: (65)67434072 Fax: (65)62344235 Email: sales@inovamicro.com		Authorized Sole Distributor: Worldwide: iNOVA Microsystems Pte Ltd