![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

ARX ASURO Robot
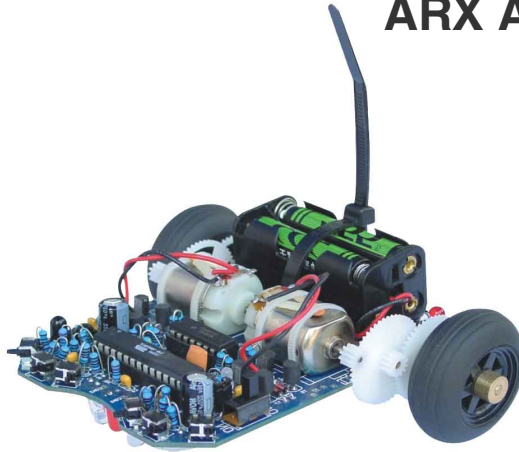
ARX Capabilities:

Cruise around wirelessly with PC control via USB transceiver

Follow a black or white line

Detect collisions

Measure and control rotational speed of motors via encoders

Move given distance

Rotate specific angles

Measure driven distance

Move in geometric paths: circles, polygons, and others

Read and transfer data wirelessly to and from PC via USB transceiver

Expandable via expansion pins

With optional

Wireless:

Read and transfer data to and from a PC or Android phone via optional Bluetooth

Cruise around via Android phone control

Overview:

The ARX is a small autonomous multi-sensored robot developed for educational purposes by the DLR, the German Aerospace Center (like NASA).

Highly versatile, the ARX is completely programmable in C. Assembly is easy for experienced electronic technicians and feasible for a novice.

Except for the printed circuit boards (PCB), only standard parts are utilized and freeware tools can be used for programming. The ARX comes unassembled and includes a soldering guide making it exceptionally suitable as an introduction into processor-controlled hobby electronics for projects in schools, universities, and technical education. Special tools, which are freeware for private users, have been used for all electronic development phases and software design, proving that robots can be designed without expensive tools or machines.

Features:

- ATmega8L AVR processor
- Fully programmable in C language
- Comes unassembled. Soldering required
- CD with software, training manual, and supporting materials
- Excellent AVR-GCC freeware for use with Windows or Linux
- Unique and safe USB IR transceiver with simple to operate flash software
- Remote control and PC-programming possible via USB transceiver
- Wireless options available
- Extensions kits available
- 6 collision-detector sensors
- Optical line-tracker unit
- 2 independently controlled 3 VDC motors
- On-board odometer sensor on both wheels
- Preprogrammed firmware for easy hardware testing
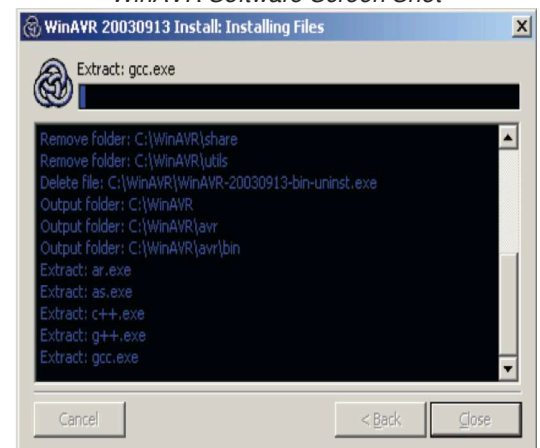- 3 LED indicators

WinAVR Software Screen Shot

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ARX

Specifications

ARX ASURO Robot	
Processor memory	8 kB in-system programmable flash
Supply voltage	4 x AAA batteries (Not Included)
Supply current	Min 10 mA Max 600 mA
Dimension (L x W x H)	117 x 122 x 45 mm
Weight	165 g
Technical data subject to change without notice	

Training & Support Manual on CD

Chapter 1: Mechanics
    Necessary tools
    Mechanical preparations

Chapter 2: Electronics
    Soldering instructions

Chapter 4: Electronic Assembly

Chapter 5: Preparation for Operation

Chapter 6: Trouble Shooting

Chapter 7: Final Adjustments

Chapter 8: Software

Chapter 9: C for ASURO

Appendix:
    Part List
    Diagram ARX
    USB IR Transceiver
    Block Diagram ASURO
    Block Diagram PIC Processor
    Contents ARX Kit
    Electronic part assembly
    Information about glue
    Resistor code tool

ARX comes with the following items:

ARX Vehicle (unassembled)

CD

USB Cable

USB IR Transceiver

Available Accessories

ARX-MSP

ARX-WRL

ARX-BT3

ARX-SNK

ARX-ULT

ARX-DSP

ARX-EXP

ARX-BOOK

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