



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!



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AAR

Arduino-Compatible Robot

AAR Capabilities:

Cruise around via PC control

Programmable with Arduino

Follow a black or white line

Measure and control rotational speed of motors via high-resolution encoders

Move given distance

Rotate specific angles

Measure driven distance

Move in geometric paths: circles, polygons, and others

Read data sent via USB from a PC

Transfer data to a PC via USB

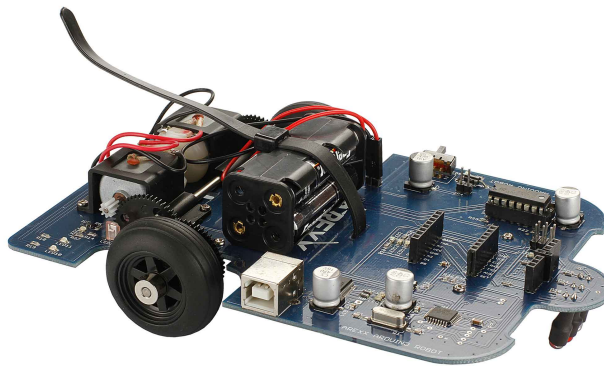
Expandable via expansion pins

With optional Bluetooth:

Read data sent via Bluetooth from a PC or Android phone

Transfer data to a PC or Android phone via Bluetooth

Cruise around via Android phone control



Features:

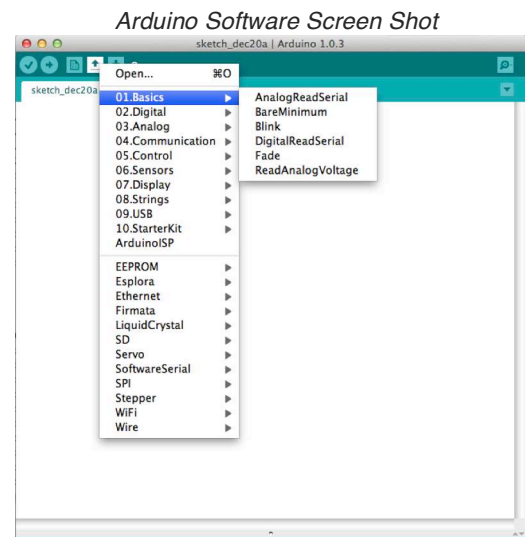
- ATmega328P, 8-bit AVR-RISC processor with 16 MHz clock
- Includes firmware and hardware selftest
- Delivered fully assembled (no soldering needed)
- CD with software, manual, and many extras
- Arduino open source software
- On-board odometer sensor on both wheels
- Line tracker sensor
- USB interface programming
- Expansion kits available
- I²C bus
- 2 independently controlled 3V-DC motors
- 14 digital I/Os on the processor (9 free)
- 8 analog input lines (2 free)
- ISP connector for bootloader programming
- Wireless control possible with optional Bluetooth and 433 MHz RF

Overview:

The AAR (Arduino-Compatible) Robot is a small autonomous mobile robot which is perfect for those new to the robotics world and also for experienced Arduino fans.

Designed in the Arduino open-source prototyping platform, the AAR is easy to program and run. With many expansion kits available your creativity is the only limit to where your AAR Robot will go.

The AAR is ideal as an introduction into processor controlled hobby electronics, and also for educational projects in schools and colleges.



AAR

Specifications

| <i>AAR (Arduino-Compatible) Robot</i> | |
|--|-----------------------------------|
| LED indicators | 13 |
| Processor memory | 32kb in-system programmable flash |
| Supply voltage | 4 x AAA batteries (Not Included) |
| Supply current | Min 10mA Max 600mA |
| Dimension (H x W x D) | 40 x 120 x 180 mm |
| Technical data subject to change without notice | |

AAR comes with the following items:

AAR vehicle

CD

USB Cable

Available Accessories:

ARX-WRL

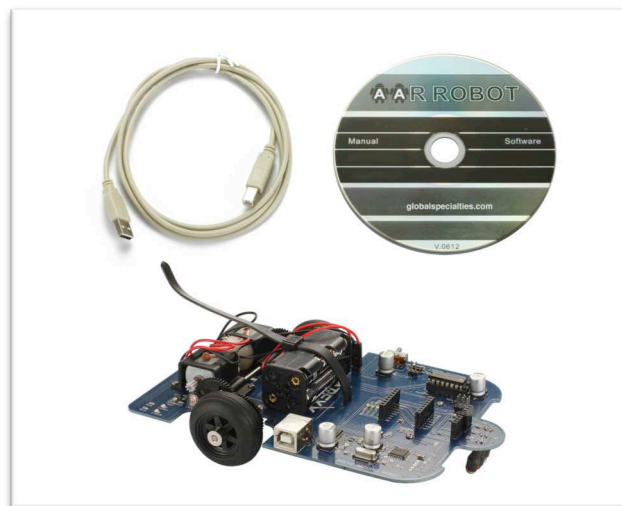
ARX-BT3

ARX-SNK

ARX-ULT

ARX-MSP

ARX-EXP



Training & Support Manual on CD

Chapter 1: Introduction

The Arduino robotics family Specifications

Chapter 2: General Description

Chapter 3: Arduino Robot

Block diagram
AAR hardware
Arduino software

Chapter 4: The AAR

Download and installation of software

The Arduino language
Installation of a USB driver

AAR hardware
Installing the battery compartment

Arduino software
Programming with Arduino programs

Selecting an Arduino program
Selecting the correct COM-port
Program transfers to the Arduino Robot

Chapter 5: H-Bridge Circuits

Chapter 6: Odometry

Chapter 7: Programming a Boot-loader

Appendix:

Parts list

Main board—top view

Main board—bottom view

Schematics AAR



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