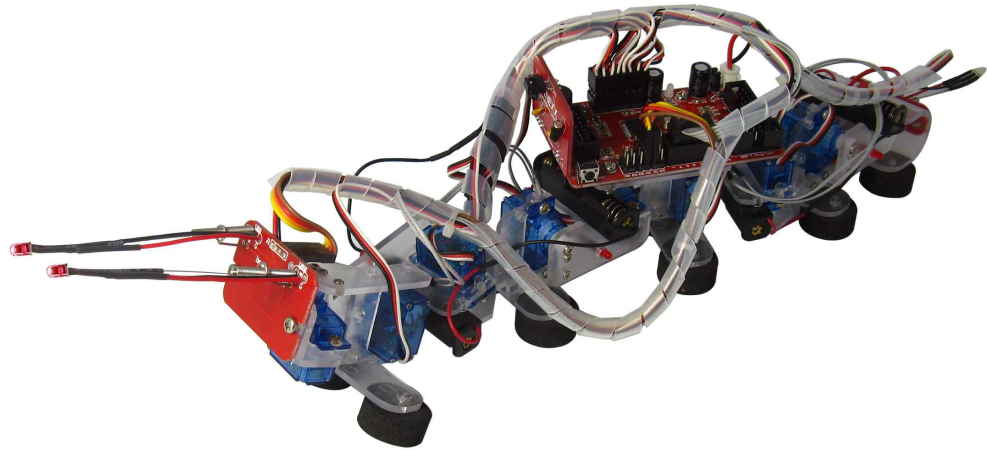


# R500

## Robotic Caterpillar



### Model R500 Capabilities:

Programmable in C  
via open source  
WinAVR and  
RobotLoader  
software

Moves like a  
caterpillar on the  
floor

Retreats from object  
when contact made  
with antenna

Antenna changes  
color when touching  
an object

Transparent body is  
fitted with LEDs and  
shines bright in the  
dark

Gets back on its feet  
when knocked over

Controllable with TV  
remote

Expandable via the  
I<sup>2</sup>C bus interface

### Overview:

The Robotic Caterpillar is a fun introductory robotic kit that comes unassembled so it is perfect for school or hobby projects. Minor soldering required. The Caterpillar is controlled by a powerful ATMEGA16 microcontroller that is programmable via open source tools in C.

The robot comes with many example programs already written. Easily download them to the robot using the supplied USB interface and the RobotLoader software. Or write your own custom programs using the free open-source WinAVR software.

### Features:

- 8 degrees of freedom
- Programmable in C
- IR receiver allows control with a universal remote (not included)
- Antenna sensor
- Tilt sensor
- ATMEGA16 Processor
- Various available I/Os
- I<sup>2</sup>C Bus Expandable
- Easily download programs with RobotLoader Software included on CD
- Comes unassembled as a kit
- ASURO (ARX) accessories available: Display (ARX-DSP), Ultrasound (ARX-ULT), Snake Vision (ARX-SNK), and Minesweeper (ARX-MSP).

# R500

# Robotic Caterpillar

Model R500 comes with the following items:

Robotic Caterpillar (unassembled as a kit)

Software CD with WinAVR and RobotLoader

Extensive 77-page manual

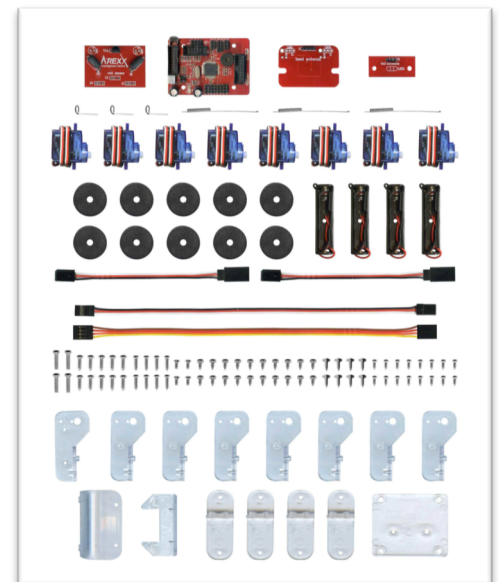
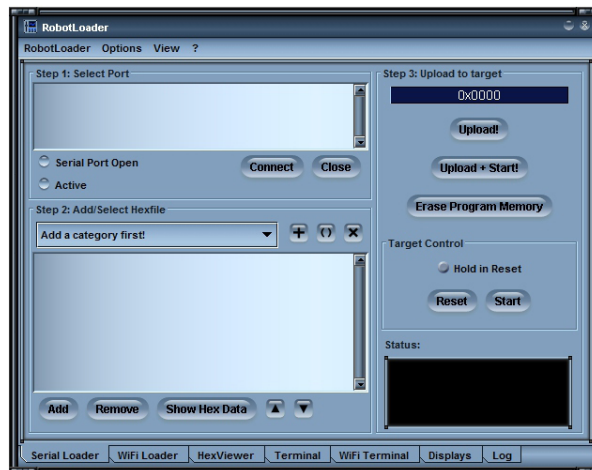
USB connector cable

USB programmer interface

## Specifications:

<b>Processor</b>	ATMEGA16 8 bit microcontroller
<b>Throughputs</b>	16 MIPS at 16 MHz
<b>Memory</b>	16 KB Flash ROM, 1 KB SRAM, 512 B EEPROM
<b>Programming Language</b>	C
<b>Expansion System</b>	I <sup>2</sup> C Bus
<b>Interface</b>	USB Cable to PC
<b>Control</b>	Universal remote (not included) capable
<b>Caterpillar Dimensions (L x W x H)</b>	19 x 3 x 4 in.
<b>Power Supply</b>	4 AAA Batteries (not included)
<b>Power Consumption</b>	100 mA at rest, 3 A with all servos operating
<b>Caterpillar Weight</b>	.70 lbs (with batteries)

Specifications subject to change without notice. Go to [globalspecialties.com](http://globalspecialties.com) for the latest update.



Innovative Training Solutions

© 2013 Global Specialties 20140331

22820 Savi Ranch Parkway

[globalspecialties.com](http://globalspecialties.com)

Yorba Linda, CA 92887

1.800.572.1028