Arrec Rebo Early Education Set

Get an early start the right way!





Who made it?

- Well, we did. Artec is an educational manufacturer that got its start in 1960. Today we boast a clientele of over 113,000 educational institutions and 3,000 corporate clients in Japan alone.
- Our lineup of more than 9,000 original products is available in 65 nations across the globe and counting.
- We made a push in recent years to create ArtecRobo, a line of programmable robotics kits for kids. Now we use the same system in programming classes across Japan.



Osaka Head Office



Tokyo Branch Office



Osaka Logistics Center

Founded	Capital	Employees	Location
1960/4/5	40 million JPY	280	Head Office: Yao, Osaka Branch Office: Chiyoda, Tokyo Logistics Center: Yao, Osaka



What's ArtecRobo?

Glad you asked! ArtecRobo is made up of...

- 1. Artec's patented Artec Blocks
- 2. Our own Arduino-compatible Studuino board
- 3. Three levels of customized, open-source programming environments (and support for iOS and Android, too!)





*Models shown were built using other kits.



Tell me about the hardware (1/2)

- You don't need screws or solder to wire your Studuino
- Every part is plug and play
- Motor driver chip on board no more clunky motor driver shields
- Standard Arduino pin layout for all of your 3rd party Arduino-compatible parts

Hardware Studuino has built-in connectors for your motors, sensors, and LEDs.





Tell me about the hardware (2/2)

The Specs

MCU		ATmega168PA		
Flash ROM		16 KB (includes 0.5 KB for boot loader)		
SRAM		1 КВ		
EEPROM		512 B		
Digital I/O pins		DC Motor driver: D2, D3, D4, D5, D7, D8		
(14 total)		Servomotor driver: D2, D4, D7, D8, D9, D10, D11, D12		
Analog input pins		Push-button switches: A0, A1, A2, A3		
(8 total)		Sensors: A0, A1, A2, A3, A4, A5, A6, A7		
Clock frequency		8 MHz		
Operating voltage		3.3V		
DC Motor driver IC		TB6552FNG (max. 1A)		
USB serial IC		PL2303TA		
Power Supply	USB	5V		
	External power source	3.6V-16V (required when using Servomotor and DC Motor)		
LED light	Power	Red		
	D13	Green		
	TX/RX	Yellow		
Push-button switches		Shared with connectors A0, A1, A2, A3		



What about the software?

• The Early Education Set uses our Icon Programming Environment, a kidfriendly environment with simple, drag-and-drop interface!







/2014 Blocks



A new learning resource that defies convention!

So what are they?

Vert ical

Specially-designed, innovative cubes that make an endless variety of shapes!

Even diagonally! Diagonal **Connections you** never thought possible!

Front and back, top to bottom and side by side!











Artec Blocks connect in **60** different ways!

Let's do the math!

Each block has 15 openings and one connecting stud. Each opening can connect in 4 different ways to create a wealth of different shapes!

15 x 4 = **60!**



And Are Blocks? (3/3)

- Safe: CE, ASTM and ST compliant!
- Winner of multiple awards!





What do you get? (1/2)

- Six illustrated, full-color textbooks for 12 lessons' worth of learning
- A sturdy box filled with:
 - A boatload of Artec Blocks,
 - Two DC Motors, two LEDs, a Buzzer, and cables
 - An Arduino-compatible Studuino board
- A ridiculous amount of fun!









What do you get? (2/2)

Robots

Textbooks



Class 1 (2 lessons) Moving on Wheels Use a motor and wheels to make your very own car and motorcycle!





ATC

Programming

Class 1 (2 lessons) Back and Forth Use a computer and program your car to drive!





Class 2 (2 lessons) Gaming with Gears Use mechanisms made of gears to grab blocks or spin tops!





Class 3 (2 lessons)

Making Things Move Learn how to transfer movement to make a woodpecker robot and launch blocks!



Sound and Light

Class 2 (2 lessons) Left and Right Use two DC Motors to make a car that turns left and right!



Class 3 (2 lessons) Sound and Light Use Buzzers and LEDs to program sound and light!





But why?

- Japan's Ministry of Education, Culture, Sports, Science, and Technology (whew!) plans on making programming education a compulsory subject in schools by 2020.
- Despite this, increased automation and an ever-present shortage of people to fill IT jobs means STEM education was a necessity *yesterday*.
- Though our Robot Programming School is recommended for ages eight plus, we realized it was never too early to start building a foundation in STEM. The Early Education set is intended for kids taking their first steps into primary school.
- Honestly, who doesn't love playing with blocks?







Start preparing the children for the world of tomorrow today!





Thank you!