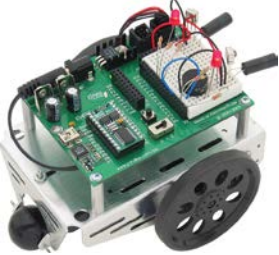











PARALLAX SMALL ROBOT COMPARISON CHART			
ROBOT →  FEATURES ↓	 <a href="#">Boe-Bot Robot Kit</a> <a href="#">28832</a>	 <a href="#">Robotics Shield Kit for Arduino</a> <a href="#">130-35000</a>	 <a href="#">ActivityBot Robot Kit</a> <a href="#">32500</a>
Programming			
<b>Microcontroller</b>	BASIC Stamp 2 module  included	Requires Arduino Uno  and USB A-B cable, NOT INCLUDED!	Propeller P8X32A, included (built into the Activity Board)
<b>Programming language</b>	PBASIC	Arduino	C
<b>Processing</b>	Single-core sequential processing	Single core with interrupts for multitasking	Multi-core with 8 processors for multiprocessing
<b>Tutorial format (grades 8-14)</b>	Printed book (& free PDF)	Web	Web
<b>Free software</b>	BASIC Stamp Editor	Arduino IDE 	SimpleIDE 
Development Board and Features			
<b>Development board</b>	<a href="#">Board of Education with BS2 Module 28803</a>	<a href="#">Board of Education Shield 35000</a> (specs w/ Arduino Uno)	<a href="#">Propeller Activity Board </a> <a href="#">32910</a>
<b>Solderless breadboard</b>	Yes	Yes	Yes
<b>Free digital I/O pins</b>	16	14	18
<b>3-pin servo headers</b>	4	4	6
<b>microSD card &amp; socket</b>	No	No	Yes
<b>XBee RF module socket</b>	No	No	Yes
<b>Audio output jack</b>	No	No	Yes
<b>A/D inputs</b>	None	6 10-bit	4 12-bit
<b>USB powered</b>	No	Yes	Yes
Sensor Components Included			
<b>Touch-whisker</b>	2	2	2
<b>Light sensor</b>	2	2	2
<b>IR object detector</b>	2	2	6
<b>PING))) Ultrasonic Distance Sensor</b>	0	0	1
Drive & Power Systems			
<b>Servo motors (continuous rotation)</b>	Original 6 VDC, 50 RPM	Original 6 VDC, 50 RPM	High-speed 7.5 VDC 120 RPM w/ encoders 180 RPM w/o encoders
<b>Wheel encoders</b>	No	No	Yes
<b>Battery pack*</b>	4 AA 1.5 V (6 V total)	5 AA 1.5 V (7.5 V total)	5 AA 1.5 V (7.5 V total)

Open-source hardware  and software . \*Batteries not included.

\*BASIC Stamp and Boe-Bot are registered trademarks of Parallax Inc. Arduino is a registered trademark of Arduino, LLC. XBee is a registered trademark of Digi International.

PARALLAX SMALL ROBOTS – COMPATIBLE HARDWARE ADD-ONS			
ADD-ONS↓ / ROBOT→	Boe-Bot Robot Kit 28832	Robotics Shield Kit for Arduino 130-35000	ActivityBot Robot Kit 32500
<a href="#">Li-Ion Power Pack/Charger</a> 28988 	Yes, be sure to power servos with 5 V, not VIN  <a href="#">Li-Ion batteries sold separately</a>	Yes, be sure to power servos with 5 V, not VIN  <a href="#">Li-Ion batteries sold separately</a>	Yes, and you can power servos with VIN  <a href="#">Li-Ion batteries sold separately</a>
<a href="#">Boe-Boost 30078</a> 	Yes, adds a 5 <sup>th</sup> battery, for a total of 6 V with 1.2V rechargeable batteries.	Yes, adds a 6 <sup>th</sup> battery, for a total of 7.2 V with 1.2V rechargeable batteries.	Yes, adds a 6 <sup>th</sup> battery, for a total of 7.2 V with 1.2V rechargeable batteries.
<a href="#">PING))) Mounting Bracket Kit</a> 570-28015 	Yes, but <a href="#">PING))) Ultrasonic Distance Sensor (28015)</a> must also be purchased separately	Yes, but <a href="#">PING))) Ultrasonic Distance Sensor (28015)</a> must also be purchased separately	Yes! PING))) sensor is included with the ActivityBot Kit, so only the Mounting Bracket is needed.
<a href="#">QTI Line Follower Kit 28108</a> 	Yes	Yes	Yes
<a href="#">Gripper Kit 28202</a> 	Yes	No. The Arduino Uno mounted under the board obstructs mounting the Gripper hardware.	Yes
<a href="#">Veho360 Speaker 900-00018</a> & <a href="#">Speaker Mount 725-32905</a> 	No	No	Yes! The Propeller microcontroller can play WAV files from the microSD card.
<a href="#">Tank Tread Kit 28106</a> 	Yes	Yes	Yes, but you must remove the wheel encoders. Be sure to add <code>drive_feedback(0);</code> to your C program.
<a href="#">Crawler Legs Kit 30055</a> 	Yes	Yes	Yes, but you must remove the wheel encoders. Be sure to add <code>drive_feedback(0);</code> to your C program.
<a href="#">Digital Encoder Kit for Boe-Bot</a> 28107 	Yes	No	Not needed! 64-tick encoders are included with the ActivityBot kit.