

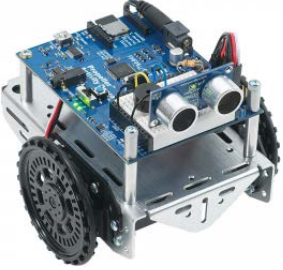












PARALLAX SMALL ROBOTS – COMPARISON CHART FOR COMPLETE KITS

ROBOT → FEATURES ↓	 Boe-Bot Robot Kit 28832	 Robot Shield With Arduino 32335	 ActivityBot Robot Kit 32500
Programming			
Microcontroller	BASIC Stamp 2 module  included	Arduino Uno module  included	Propeller P8X32A included on the Activity Board 
Programming language	PBASIC	Arduino	C
Processing	Single-core sequential processing	Single-core with interrupts for multitasking	Multi-core with 8 processors for multiprocessing
Tutorial format (grades 8-14)	Printed book (& free PDF)	Web	Web
Free software	BASIC Stamp Editor	Arduino IDE 	SimpleIDE 
Development Board and Features			
Development board	Board of Education with BS2 Module 28803	Board of Education Shield 35000 (specs w/ Arduino Uno)	Propeller Activity Board  32910
Solderless breadboard	Yes	Yes	Yes
Free digital I/O pins	16	14	18
3-pin servo headers	4	4	6
microSD card & socket	No	No	Yes
XBee RF socket	No	No	Yes
Audio output jack	No	No	Yes
A/D inputs	None	6 10-bit	4 12-bit
USB powered	No	Yes	Yes
Sensor Components Included			
Touch-whisker	2	2	2
Light sensor	2	2	2
IR object detector	2	2	6
PIPING)) Ultrasonic Distance Sensor	0	0	1
Drive & Power Systems			
Servo motors (continuous rotation)	Original 6 VDC, 50 RPM	Original 6 VDC, 50 RPM	High-speed 7.5 VDC 120 RPM w/ encoders 180 RPM w/o encoders
Wheel encoders	No	No	Yes
Battery pack*	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. V1.1 replaces *Robotics Shield Kit* without Arduino or cable (130-35000) with *Robot Shield With Arduino* (32335)

PARALLAX SMALL ROBOTS – COMPATIBLE HARDWARE ADD-ONS			
ADD-ONS↓ / ROBOT→	Boe-Bot Robot Kit 28832	Robot Shield With Arduino 32335	ActivityBot Robot Kit 32500
Li-Ion Power Pack/Charger 28988 	Yes , be sure to power servos with 5 V, not VIN Li-Ion batteries sold separately	Yes , be sure to power servos with 5 V, not VIN Li-Ion batteries sold separately	Yes , and you can power servos with VIN Li-Ion batteries sold separately
Boe-Boost 30078 	Yes , adds a 5 th battery, for a total of 6 V with 1.2V rechargeable batteries.	Yes , adds a 6 th battery, for a total of 7.2 V with 1.2V rechargeable batteries.	Yes , adds a 6 th battery, for a total of 7.2 V with 1.2V rechargeable batteries.
PING))) Mounting Bracket Kit 570-28015 	Yes , but PING))) Ultrasonic Distance Sensor (28015) must also be purchased separately	Yes , but PING))) Ultrasonic Distance Sensor (28015) must also be purchased separately	Yes! PING))) sensor is included with the ActivityBot Kit, so only the Mounting Bracket is needed.
QTI Line Follower Kit 28108 	Yes	Yes	Yes
Gripper Kit 28202 	Yes	No. The Arduino Uno mounted under the board obstructs mounting the Gripper hardware.	Yes
veho360 Speaker 900-00018 & Speaker Mount 725-32905 	No	No	Yes! The Propeller microcontroller can play WAV files from the microSD card.
Tank Tread Kit 28106 	Yes	Yes	Yes , but you must remove the wheel encoders. Be sure to add <code>drive_feedback(0);</code> to your C program.
Crawler Legs Kit 30055 	Yes	Yes	Yes , but you must remove the wheel encoders. Be sure to add <code>drive_feedback(0);</code> to your C program.
Digital Encoder Kit for Boe-Bot 28107 	Yes	No	Not needed! 64-tick encoders are included with the ActivityBot kit.