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| **Robot Kits** | | [[Robot Books](http://www.robotbooks.com/)](http://www.robotbooks.com/) |
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| |  | | --- | | **Kits and Toys** |   [Robot Kits](http://www.robotbooks.com/robot-kits.htm)  [Stiquito Kit](http://www.robotbooks.com/Muscle_Wires.htm)  [BattleKits](http://www.battlekits.com/)  [Robot Toys](http://www.robotbooks.com/robot_toys_II.htm)  [Solar Kits](http://www.robotbooks.com/solar_kits.htm)  [Robot Arms](http://www.robotbooks.com/robot_arms.htm)  [Robosapien](http://www.robotbooks.com/robosapien.htm)  [Basic Stamp Kits](http://www.robotbooks.com/basic_stamp.htm)  [Lego MindStorms](http://www.robotbooks.com/Lego-Mindstorms.htm)   |  | | --- | | **Books** |   [Beginners Books](http://www.robotbooks.com/beginners_robot_books.htm)  [Hobby Robots](http://www.robotbooks.com/hobby-robots.htm)  [Robot Sports](http://www.robotbooks.com/battlebots.htm)  [Electronics](http://www.robotbooks.com/electronics.htm)  [Mechanics](http://www.robotbooks.com/mechanics.htm)  [Robot Minds](http://www.robotbooks.com/artificial-intelligence.htm)  [Books for Kids](http://www.robotbooks.com/robots_for_kids.htm)  [Robots at Work](http://www.robotbooks.com/industrial-robots.htm)  [Microcontrollers](http://www.robotbooks.com/microcontrollers.htm)  [Advanced Books](http://www.robotbooks.com/advanced-robotics.htm)  [Used Books](http://www.robotbooks.com/book_sale.htm)   |  | | --- | | **More Robotics** |   [Real Robots](http://www.robotbooks.com/robotic_lawn_mower_robot_vacuum.htm)  [Robot Motors](http://www.robotbooks.com/robot-motors.htm)  [Remote Controls](http://www.robotbooks.com/remote_control_for_robots.htm)  [Robot Parts](http://www.robotbooks.com/robot_metals.htm)  [Robot Tools](http://www.robotbooks.com/robot_tools.htm)  [Magazines](http://www.robotbooks.com/magazines.htm)  [Robot Videos](http://www.robotbooks.com/movies.htm)  [Robot News](http://www.robotbooks.com/robot-news.htm)  [RoboLinks](http://www.robotbooks.com/robot-links.htm)  [Contact](http://www.robotbooks.com/service.htm) | Welcome to one of the largest selections of robot kits on the internet! Building a robot from a kit is one of the best ways to get involved with robotics. Kits are also fun and educational. Our kits range from the very simple Weasel and RocKit to the moderately simple [Robotic Arm](http://www.robotbooks.com/robot_arms.htm) and the more advanced [Robosapien](http://www.robotbooks.com/robosapien.htm). Many of these kits are available in soldering and non-soldering versions!      robot    Robot Lady Bug robot  http://www.robotbooks.com/robot_lady_bug.jpgThe Ladybug Robot moves with its six legs and makes use of infrared emitting diodes as its eyes to avoid obstacles along its path. Ladybug automatically makes a turn the moment it detects an object in its path. It continues to move forward again when no obstacle is in the way.  Specifications: Power: Four AAA batteries (not included).  Includes motor, gearbox and all parts Easy to follow instructions Soldering is required Requires basic hand tools to assemble  Top of Form  $19.95  Bottom of Form |  |
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|  | robot    Titan Tank Robot Kit robot  Titan Tank Robot KitTitan Tank Robot Kit is a wireless infrared remote control kit. Its microprocessor provides 4 different channels to have up to 4 Titan Tanks fight each other at the same time. Each Titan Tank Robot Kit fires 8 shots and is designed to make a sound when shooting. Once a Titan Tank is struck 4 times by an enemy tank, it will turn 360 degrees and make a sound like an ambulance. When a Titan Tank "dies" it must be restarted in order to join the battle.   The Titan Tank Robot Kit moves by 6 Wheels which can move the tank forward, backward, right and left for a total of 8 movements which provide endless fun and excitement.  Save on 2 - Buy our "Pair" and start a Titan Tank robot war today!  Ages 10 and Up  Clear Illustrated Directions  No Soldering Required  Tools Required: Long Nose Pliers, Diagonal Cutter, Screwdriver  Batteries not included  Top of Form  Non Soldering Kit   $28.95  Bottom of Form  Top of Form  Buy Two Kits and Save!   $56.95  Bottom of Form      robot    Sound Reversing Robot Car Kit robot  Sound Reversing Robot Car KitThis Robotic Car is a great introduction to soldering as well as the basics of sound control and mechanical motion. The car has a microphone that feeds noise to the control circuitry. When a loud enough sound (like a clap) is heard it will cause the car to stop moving forward and reverse itself turning slightly left for a few seconds. Then the car will resume forward motion in a different direction. You can adjust the circuit sensitivity so that very soft or very loud noises will reverse the motion. Learn motor theory, transistor switching and R/C time constant circuits.  Specifications:  Power: 2 AA batteries (not included).  Includes sound activated circuit.  Circuit board requires solder assembly.  Requires basic hand tools and soldering equipment.  Top of Form  Soldering Kit   $17.95  Bottom of Form      robot    TriBotz Robot Kit robot  TriBotz Robot KitThe Tribotz is three robots in one!  The Tribotz Robot kit teaches the fundamentals of sensor technology and shows you how it all fits together. Using only basic hand tools (cutting pliers, long nose pliers, and Phillips screwdriver) you can assemble this robot kit for a fun learning experience.  Tribotz can operate in 3 different modes:  \*   Avoider mode - In this mode, on-board sensors help Tribotz to avoid obstacles.  \*   Sound mode - Sounds dictate the direction of movement in this mode, as Tribotz changes direction in response to sound impulses.  \*   Line Tracer mode - Sensors enable the robot to follow a line drawn by a felt-tipped pen.  The TriBotz will react to sound impulses and objects in its way. It will reverse away from a sound or obstruction and then move forward. Make a path with a black felt-tip marker or black tape and watch how infrared sensors allow the TriBotz to make corrections. This kit contains wonderful instructions and educational background information on each component.   Tribotz Specifications:  Power Source: One 9V and two AA batteries  Height: 4.4 inches  Length: 5.8 inches  Width: 6 inches  Top of Form  Non Soldering Kit   $54.95  Bottom of Form      robot    Hydrazoid robot  Hydraziod Robot KitHydrazoid is an ideal introduction for someone wanting to investigate the fascinating world of robots and intelligent machines.  This kit introduces the fundamentals of sensor technology and shows how sensors, electronic circuit boards, and motors can be combined with carefully designed mechanical gears and shafts to produce a robot that walks and responds to sounds.  Clap your hands and watch Hydrazoid walk and then stop. How does it do that?  By assembling the robot you will find out what the different components in your robot do and how they work together to generate its behavior. You will also be introduced to basic electronics and mechanical design. When you have built and mastered the Hydrazoid, you will be ready to move on towards the more advanced robots that are used for research. Have fun!  Using only basic hand tools assemble this robot kit for a fun learning experience. LEDs and illuminated fiber optic antennas give the Hydrazoid a cool alien appearance. You'll feel like an engineer when you're done. Size: 7 inches tall x 6 inches long.  Top of Form  Non Soldering Kit   $34.95  Bottom of Form      robot    Antoid Robot Kit robot  Antoid Robot KitThe Antoid is a unique, beginner-level robot kit that features obstacle detection and avoidance. Powered by two DC motors, the Antoid walks on six legs and avoids bumping into objects by detecting them with an infrared sensor. The robot walks forward until it detects an obstacle, at which point it backs up and turns before resuming its forward gait. By assembling the Antoid robot kit, you will gain an appreciation for basic sensors, gearboxes, and electronics.  The kit includes all the parts you need to put it together, including two pre-soldered circuit boards, two DC motors, and high-quality, durable plastic parts that screw together nicely, and a large front shell with a decidedly extraterrestrial look.  Because the printed circuit boards are pre-assembled, putting the Antoid together is largely a mechanical project. All you will need are a small Phillips screwdriver and wire cutters. The instructions are easy to understand.  The Antoid is a good robot kit for anyone as young as 10 who wants to get into robotics. The robot is fairly straightforward to assemble, yet it is more than just a snap-together kit. Through construction of this robot, you will learn valuable skills that will help you with more advanced projects in the future. As you interact with your Antoid robot, you will gain an appreciation for the capabilities autonomous robots. Dimensions: 6 x 7 x 6 inches (L x W x H)  Top of Form  Non Soldering Kit   $49.95  Bottom of Form      robot    WAO Kranius robot  WAO KraniusIntroducing the fourth generation of the popular WAO programmable robot kits. WAO Kranius is a two-wheeled robot that you can program without a personal computer. The brain consists of an 8 bit micro-controller and keyboard with 33 tactile buttons. This bundle of brains can store up to 60 programming steps and 30 FOR-NEXT multiplex loops. In addition to its futuristic and powerful design, it features 6 vision sensors to see in front and below the robot. The forward looking "eyes" are two infrared LEDs and an infrared detector IC. The 4 floor light sensors enable it to distinguish the contrast of light and dark underneath its shell for line-following or other navigational clues.  This robot is more than just fun. Assembling, building, and following instructions help develop fine motor skills and hand-eye coordination. Because it's programmable, one has to plan ahead, think systematically and logically, and develop problem-solving skills. Kranius will challenge you to think creatively.  The optional computer interface allows for dual (computer and manual) control of the Kranius. It features programming, saving, editing, and downloading capabilities using your USB port. Operating System: Windows XP or VISTA  Easy to assemble, this robot kit makes a great entrant for robotic competitions, robotic workshops, after-school programs, special events, gifts, science enrichment camps, and classroom activities.  Top of Form  Non Soldering Kit  $89.95  Bottom of Form  Top of Form  USB Computer Interface   $89.95  Bottom of Form      robot    Jungle Robot robot  Jungle RobotJungle Robot is our newest edition to our award winning line of robotic and science kits.  Jungle Robot is a mysterious robot. One day, you may look up and catch a glimpse of Jungle Robot crossing hand-over-hand high across a string extended from tree to tree in the jungle mist. Another day, you can catch him walking through the fallen leaves on the ground. A microphone and printed circuit board controls your multi-function (walking or climbing) friend. When you think Jungle Robot is asleep, just cry Wake Up! Your robot will immediately start climbing or walking and wait for another command.  Jungle Robot is an excellent beginners robot. This robot kit can teach the basic principles of robotic sensing and locomotion. It features a pre-assembled printed circuit board, hardware, and mechanical drive system that can be handled by almost anyone from age 10 and up. Only basic hand tools are required for assembly.  Top of Form  Non Soldering Kit   19.95  Bottom of Form      robot    RocKit Robot Kit robot  Rockit Robot KitOWI introduces to their award winning Beginner Series of educational electronic robot and science kits...RocKit Robot! The new futuristic style includes high performance and superior materials. RocKit Robot is a spunky little robot that you can build. Explore the fundamentals of robotics with this informative and entertaining robot kit.  Appropriate for ages 10 and up, RocKit Robot is an intelligent robot with a touch/sound sensor. If it comes in contact with an object or hears a loud noise (such as hands clapping), RocKit Robot automatically reverses, then turns before embarking on a new course. RocKit Robot is lots of fun from the moment it arrives. Requiring only basic hand tools, it includes step-by-step instructions, pre-assembled printed circuit board, condenser microphone, and an easy-to-assemble mechanical drive system. It's an ideal gift for the educator, hobbyist or budding scientist. Available in soldering and non-soldering versions.  The Institute for Childhood Resources has selected the RocKIT robot kit as a "Top Ten Creative Products" winner and "100 Best Children's Products" winner!  Top of Form  Non Soldering Kit   $22.95  Bottom of Form  Top of Form  Soldering Kit   $22.95  Bottom of Form      robot    Weasel Robot robot  Weasel Robot KitWeasel is a tenacious little robot warrior that includes two types of sensors that allow it to see a line or feel its way along walls and around corners. The contact sensor activates the wall-sensing micro switch to control the motors. It is the classic robot design using the “Left Hand Rule” to escape mazes. Underneath Weasel's sturdy plastic base, you will discover photo transistors that enable it to detect and follow a black line. Its three-speed gearbox will help navigate at the speed you determine.  Quick and easy to assemble, this is a beginner robot kit that makes a great entrant for robotic competitions, robotic workshops, after-school programs, special events, gifts, science enrichment camps, and classroom activities.  Weasel has been selected by the Children's Institute for Childhood Resources as one of the "100 Best Children's Products" and "10 Best Software/High Tech Products" for 2003. Requires two AA batteries (not included).  Top of Form  Soldering Kit  $22.95  Bottom of Form  Top of Form  Non-Soldering Kit  $22.95  Bottom of Form      robot    Moon Walker Robot Kit robot  Moon Walker RobotMoon Walker II has combined the technology of two sensors. It begins to walk when it detects a change in light intensity or sound commands. Moon Walker II continues it's four legged voyage until instructed by an internal timer to stop. This kit presents an engaging opportunity to learn about some of the mechanics, operation and history of robots.  When assembled, this robot uses a phototransistor to sense changes in light (such as turning on a lamp) and a condenser microphone to sense changes in sound (such as clapping). It converts those stimuli into electronic signals to power a motor. The sensitivity of the sensors is adjustable.  Specifications: Movement: 4 legs powered by crankshafts. Sensors: sound and light. Power Source: "AA" x 1 (not included). Size: 5" tall X 4" diameter. Power: About 210mA.  Top of Form  Non Soldering Kit   $34.95  Bottom of Form  Top of Form  Soldering Kit   $34.95  Bottom of Form      robot    Soccer Jr. Walking Robot Kit robot  Soccer Jr. RobotThis award winning legged soccer robot has been redesigned to create more excitement and interaction. A new third motor is used to catch and shoot the soccer ball (included)!  Easy-to-follow, step-by-step instructions allow you to build this exciting interactive robot. The Soccer Jr. Robot Kit has six operational legs, a retrieving and kicking mechanism, and a wired controller to activate movement and ball control. It runs forward, backward, turns left or right, and executes 360-degree turns. It will even help develop your hand/eye coordination skills. Play games, tournaments, and surprise friends with great moves. Order two for great one-on-one soccer action!  After you have perfected your shooting skills you may want to learn more about robots. Our highly acclaimed set of instructions allow you to explore robotics. Topics include: Discover the History of Robots; Mechanism of three motor drive systems; Mechanism of legged drive system; and Investigate Wired Remote Control Systems. No soldering required.  Top of Form  Non Soldering Kit   $39.95  Bottom of Form      robot    Hyper Line Tracker Robot Kit robot  Line Tracker RobotThis cyber bug has a line tracking system and it is fortified with a multitude of sensors. Phototransistors enable it to detect a black line, and tracking memory allows it to memorize its last track of the black line. Two red LEDs flash to tell you which side of the light sensor is activated. What this all means is that Hyper Line Tracker is the fastest line navigator that we have ever seen.  Hyper Line Tracker follows a course of your own design! Make a path with a black felt marker or black tape and watch how light sensors enable the robot's motors to make course corrections. By using a light emitter, light sensor circuitry, and tracking memory, it demonstrates how robots "see" a pathway.  Specifications: Movement: 2 wheels driven by 2 DC motors. Control: LED/photo transistor, tracking memory. Power Source: "AA" x 4 each (not included). Size: H4.3" x L6.1" x W6.3". Power Consumption: (circuit) 60mA, (mechanical) 300mA. Available in soldering and non-soldering versions.  Top of Form  Non Soldering Kit   $49.95  Bottom of Form  Top of Form  Soldering Kit   $49.95  Bottom of Form      robot    Spider Robot Kit robot  Spider Robot Kit"Cool" just got even cooler with the invention of Spider III, the third generation in the quest to offer the most advanced design and technology available. Spider III emits a light sensor beam to detect obstacles in front of it. Detecting an object causes the robot to turn and continue in a new direction.  Specifications: Movement: 3 legs on each side powered by crank shafts, 2 DC motors. Power: "AA" battery x 2 each, 9v x 1 each (not included). Control: infrared/photo transistor. Size: H4.3" x L5.5" x W3.9". Available in soldering and non-soldering versions.  Top of Form  Soldering Kit   $49.95  Bottom of Form  Top of Form  Non Soldering Kit   $49.95  Bottom of Form | |
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| [Advertise your product on RobotBooks.com](http://www.robotbooks.com/advertise.htm)http://www.assoc-amazon.com/e/ir?t=robotbooks-20&l=ur2&o=1  [Beginners Books](http://www.robotbooks.com/beginners_robot_books.htm)  |  [Hobby Robots](http://www.robotbooks.com/hobby-robots.htm)  |  [Robot Sports](http://www.robotbooks.com/battlebots.htm)  |  [Electronics](http://www.robotbooks.com/electronics.htm)  |  [Mechanics](http://www.robotbooks.com/mechanics.htm)  |  [Robot Minds](http://www.robotbooks.com/artificial-intelligence.htm)  |  [Robot Fiction](http://www.robotbooks.com/robot-fiction.htm) [Books for Kids](http://www.robotbooks.com/robots_for_kids.htm)  |  [Robots at Work](http://www.robotbooks.com/industrial-robots.htm)  |  [Mars Robotics](http://www.robotbooks.com/mars_robot_robots.htm)  |  [Advanced Books](http://www.robotbooks.com/advanced-robotics.htm)  |  [Recommended](http://www.robotbooks.com/recommended_books.htm)  |  [Roboxers](http://www.roboxers.com/)  |  [Robot Kits](http://www.robotbooks.com/robot-kits.htm) [Solar Kits](http://www.robotbooks.com/solar_kits.htm)  |  [Robot Arms](http://www.robotbooks.com/robot_arms.htm)   |  [Robosapien](http://www.robotbooks.com/robosapien.htm)  |  [Basic Stamp](http://www.robotbooks.com/basic_stamp.htm)  |  [BioHazard](http://www.robotbooks.com/biohazard.htm)  |  [Robot Toys](http://www.robotbooks.com/robot_toys_II.htm)  |  [Muscle Wires](http://www.robotbooks.com/Muscle_Wires.htm)  |  [Lego Mindstorms](http://www.robotbooks.com/Lego-Mindstorms.htm) [Real Robots](http://www.robotbooks.com/robotic_lawn_mower_robot_vacuum.htm)  |  [Robot Motors](http://www.robotbooks.com/robot-motors.htm)  |  [Robot Tools](http://www.robotbooks.com/robot_tools.htm)  |  [Microcontrollers](http://www.robotbooks.com/microcontrollers.htm)  |  [Used Books](http://www.robotbooks.com/book_sale.htm)  |  [Robot Parts](http://www.robotbooks.com/robot_metals.htm)  |  [Magazines](http://www.robotbooks.com/magazines.htm)  |  [Holdem](http://www.holdemshortcut.com) [Robot Videos](http://www.robotbooks.com/movies.htm)  |  [Robot News](http://www.robotbooks.com/robot-news.htm)  |  [RoboLinks](http://www.robotbooks.com/robot-links.htm)  |  [Contact](http://www.robotbooks.com/service.htm) | | |

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| **BattleKits Robot Kits** |

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| The BattleKits line of robot kits is a great starting point for robotics projects like educational robots, industrial robotics, experimental robots, hobby robots, and robotic sports and competitions.  BattleKits are designed along the lines of one of the most successful competition robots ever: [BioHazard](http://www.robotbooks.com/biohazard.htm). We started with some of the key features in BioHazard and developed four rugged, low-profile, high-performance, mobile platforms on which you can build your next educational or sport robot.    http://www.battlekits.com/middle_c.JPG    **We offer three different kits:**   |  |  |  | | --- | --- | --- | | **Light Weight** | **Middle Weight** | **Heavy Weight** | | http://www.battlekits.com/light_small.JPG | http://www.battlekits.com/middle_small.JPG | http://www.battlekits.com/heavy_small.JPG |   **Our kits feature:**   * Heavy-duty frames * Light-weight base plates and bulkheads * Complete drive trains * Built-in motor and speed controller mounting * Custom wheels   **Optional components include:**   * [Motors](http://www.battlekits.com/robot_motors.htm) * [Batteries and battery mounting kits](http://www.battlekits.com/batteries.htm) * [Motor speed controllers](http://www.battlekits.com/controllers.htm) * [Radio remote controls](http://www.battlekits.com/radio_control.htm)   We feel that the above combination of features results in a kit that will save you countless hours and hundreds, (or even thousands), of dollars.    **Maximum Versatility** We started with some of the key features in the design of [BioHazard](http://www.robotbooks.com/biohazard.htm) and improved upon them in several ways. "Kit" might not be the best word to describe our products. We ship them fully assembled, (except for electrical connections), so that you can go right to work adding your finishing touches. This preserves maximum versatility and flexibility. Start with our rugged, low-profile, mobile platform to simplify and reduce the time required to complete your project.     |  | | --- | | **Rugged Construction** http://www.battlekits.com/rugged.JPGBattleKits feature a bulletproof drive train that is completely housed in a square aluminum extruded tube.  The one-piece extrusion (one each for the left and right drive trains), is precision CNC machined with mounting holes for all the sprockets, wheels, shafts, and motors. Each drive component is supported on both sides of the 3" x 3" square aluminum tubing to avoid "overhung" loads.  The tubing is made from 6061-T6 aluminum alloy. The light weight robots have frame tubes with 1/4" wall thickness and the middle and heavy weights have tubing with 3/8" wall thickness. | | http://www.battlekits.com/drive_module.JPG**Drive train modules** include a separate two-stage speed reducer for each wheel. All the drive chains are continuous loops with no connecting links. (Connecting links reduce chain strength by almost 30%.)  All our kits feature #35 chain. The sprockets, shafts, and axles are custom-made from 5140 Chromoly steel. Two different sets of sprockets are available so you have your choice of medium-fast or very fast, (details below). One of our powerful [Motors](http://www.battlekits.com/robot_motors.htm) mounts on each drive module and is plenty strong for any ordinary robot. Our middle and heavyweight drive modules also have mounting provisions for a second set of motors if you are looking for truly extraordinary acceleration. | | Robot Wheel Assembly**The wheel assembly** is made from the popular 4" Colson Performa tire. These are machined and mated to our custom hubs, bearings, and 19-tooth Chromoly sprockets. This combination weighs in at just 1.1 pounds - including the drive sprocket.  These are also available separately. Visit our [wheels section](http://www.battlekits.com/robot_wheels.htm) for more details. | | http://www.battlekits.com/base_plates.JPG**The base plates and the bulkheads** are made from 6061-T6 aluminum. The base plates are drilled and countersunk with all the mounting holes for the bulkheads, drive modules, speed controller, and several different sizes and types of batteries. All components are CNC computer machined to tight tolerances for maximum consistency and lowest cost.  One of the key features of our kits is that they are held together entirely with screws. Using screws instead of welding makes it easier to modify and repair. The heavyweight base plate has over 90 screw holes! The thickness of the base plates ranges from .156" for the heavy weight, down to .125" for the light weight. Bolting the bulkheads and the drive modules to the base plate results in a very stiff structure. You can easily drill and tap holes in the drive modules to mount your own custom components  None of the sprockets hang below the bottom surface of the drive modules - not even the sprockets on the wheels. The screws are all countersunk on the underside so nothing protrudes from the smooth surface of the base plate except the rubber part of the wheels. | | http://www.battlekits.com/mc-680.jpg**Battery Options and Mounting:** We offer three different battery options. The batteries are held in place with steel mounting hardware that is bolted to the base plate. The base plates have been pre-drilled and countersunk for the hardware for each type of battery and for every optional battery location. To hold the batteries down onto the base plate we use 2" wide Velcro strapping. This combination of steel and Velcro makes for a very secure and low-cost mount while making it easy to remove the batteries for maintenance.  Visit our [batteries section](http://www.battlekits.com/batteries.htm) for details. | | http://www.battlekits.com/tip_resistant.JPG**Tip Resistance:** The wheels are positioned so that they stick out of the frame towards the front and the rear. This allows the robot to be tipped up onto its front or rear and still maintain contact between the drive wheels and the floor. You can decide to keep this feature or cover the wheels. The wheels are also positioned as close to the sides of the frame as possible so that even sideways tips will still have to be quite extreme before the frame comes in contact with the floor.  Another key feature is the low profile. The highest point on any of our kits (the bulkheads) is just 4.4 inches from the floor. This allows you plenty of room to mount your educational project or other devices on top of the kit's mobile platform without creating a robot that is unreasonably tall. A low center of gravity also makes it very difficult to tip the robot over.  http://www.battlekits.com/ground_clearance_s.JPG**Ground Clearance:** In place of the standard four-inch wheels, optional five-inch, 28-tooth wheels can be fitted to any of our kits for additional ground clearance. This requires drilling new axle holes and removing some aluminum around the wheels. Contact us and we will provide detailed drawings, or we can do the job for you at an additional cost. Shown on the left is the Light weight kit with 5-inch wheels. The ground clearance is increased to over 1.8 inches.  Here is our [5-inch conversion kit](http://www.battlekits.com/wheel_conversion.htm) if you already have a BattleKit and you want to make the switch. |   **Minimum Weight** The only steel components in our kits are the sprockets, the axles, and small hardware. Everything else is made from aluminum. The following chart lists the size and weight of each basic kit along with the weight of the kits with our motors, batteries, and speed controllers installed. Note that the kits can be configured with many different motor and battery combinations. The combinations used in the chart are just examples.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | Robot Length | Robot Width | Basic Kit Weight | Full Kit Weight | | Light | 17.7 | 15.6 | 21 | 37 | | Middle | 22.4 | 21.3 | 30 | 62 | | Heavy | 30.0 | 24.0 | 43 | 83 |   The "Full Kits" in the above chart include the following components:   |  |  |  |  | | --- | --- | --- | --- | |  | Motors (Two of each) | Batteries (Two of each) | Speed Controller | | Light | E30-150 | MC-1250 | AmpFlow 160 | | Middle | A28-400 | MC-545 | AmpFlow 160 | | Heavy | A28-400 | MC-680 | AmpFlow 160 |         **Light Weight Kits** http://www.battlekits.com/light_kit.JPGAll the kits share the same wheels and speed reduction hardware. The light weight kit is the simplest and lightest possible 4-wheel-drive configuration using our custom hardware. It includes two dual-wheel drive train modules, aluminum bulkheads, and a base plate. The motors are located in the center of the drive modules and each wheel has its own two-stage speed reducer.  The base plate is drilled and countersunk with all the holes required to mount the speed controller, batteries, and other components - a total of 62 holes.  **Available options:** [Three different motors](http://www.battlekits.com/robot_motors.htm) [MC-1250 batteries](http://www.battlekits.com/batteries.htm) [AmpFlow speed controller](http://www.battlekits.com/controllers.htm) [High-speed gearing](http://www.battlekits.com/#ratio) [Radio control](http://www.battlekits.com/radio_control.htm)  **Specifications:** Ships fully assembled (except for electrical connections) Length: 17.7" Width: 15.6" Weight Bare: 21 Lbs. Weight with two E30-150 motors, two MC-1250 batteries, AmpFlow 160 controller: 37 Lbs. **Visit our** [**order page**](http://www.battlekits.com/battle_kits_order.htm) **to place your order.**      **Middle Weight Kits** http://www.battlekits.com/middle.JPGYou can order this kit with up to four motors and  four MC-545 batteries installed. The square footprint works well for a many types of robotics projects.  Note that four motors are *not* required in any of our kits in order to achieve four-wheel drive. All wheels will be driven even if only two motors are installed in the kits. But if you decide to go with the E30-150 economy motors, we suggest you use four of them in the middle weight.  A total of ten chains are used for power transmission and speed reduction. The ten chains have no connecting links, and they are all exactly the same length. In fact, every chain in all of our kits is the same length, (except two chains in the heavy weight). This enables us to buy these in large quantities and reduce costs. All the kits also share wheels, axles, sprockets, shafts, and other hardware so we are able to take advantage of volume discounts on all those items.  The base plate is drilled and countersunk with all the holes required to mount the speed controller, three sizes of batteries, and other components - a total of 84 holes.  **Available options:** [Six different motors](http://www.battlekits.com/robot_motors.htm) [M](http://www.battlekits.com/batteries.htm)[C-545 or MC-680 batteries](http://www.battlekits.com/batteries.htm) [AmpFlow speed controller](http://www.battlekits.com/controllers.htm) [High-speed gearing](http://www.battlekits.com/#ratio) [Radio control](http://www.battlekits.com/radio_control.htm)  **Specifications:** Ships fully assembled (except for electrical connections) Length: 22.4" Width: 21.3" Weight Bare: 30 Lbs. Weight with two A28-400 motors, two MC-545 batteries, AmpFlow controller: 62 Lbs **Visit our** [**order page**](http://www.battlekits.com/battle_kits_order.htm) **to place your order.**      **Heavy Weight Kits** http://www.battlekits.com/heavy.JPGThe Middle and Heavy weight kits can be configured with two or four motors. Ether configuration will provide four-wheel drive. Robots with just two motors employ a "jack shaft" in place of the second set of motors. The jack shaft is simply a shaft with two sprockets that runs in two ball bearings mounted in the aluminum drive module. Four motors are required in the heavy weight kit if you choose to use the E30-150 economy motors.  The base plate is drilled and countersunk with all the holes required to mount one or two speed controllers, three sizes of batteries, and other components - a total of 92 holes.      **Available options:** [Six different motors](http://www.battlekits.com/robot_motors.htm) [M](http://www.battlekits.com/batteries.htm)[C-545 or MC-680 batteries](http://www.battlekits.com/batteries.htm)http://www.battlekits.com/Chain.gif [AmpFlow speed controller](http://www.battlekits.com/controllers.htm) [High-speed gearing](http://www.battlekits.com/#ratio) [Radio control](http://www.battlekits.com/radio_control.htm)  **Specifications:** Ships fully assembled (except for electrical connections) Length: 30.0" Width: 24.0" Weight Bare: 43 Lbs. Weight with two A28-400 motors, two MC-680 batteries, AmpFlow controller: 83 Lbs **Visit our** [**order page**](http://www.battlekits.com/battle_kits_order.htm) **to place your order.**    **Modular Drive Units** http://www.battlekits.com/MDU_Nm.JPGIf none of our standard sizes will do the job, consider using our Modular Drive Units. With the "MDU" you can easily construct a mobile platform that is exactly the length and width you need.  Each unit is basically one half of one of our middle weight drive train modules. It includes a 10" length of the 3/8" extruded square tubing. The tube houses a two-stage chain-and-sprocket speed reducer and a 4" wheel. It bolts right up to our E30, A28, or F30 [motors](http://www.battlekits.com/robot_motors.htm). This unit is very easy to use. Just bolt it in place, plug it in, and go play!  You can easily mount these modules into your robot by drilling and tapping four 1/4-20 screw holes right into the 3/8" aluminum wall. You can also mount other components directly to the module using more tapped holes. We left the hole locations up to you so that you would have maximum flexibility in mounting.  The extruded aluminum frames are symmetrical so the motor can be mounted on either side. We call these "Type-A" and "Type-B". For a four-wheel drive robot, you would typically need two of each type. Just choose the types that you need on our order form. You can always reconfigure them if you change your mind.  http://www.battlekits.com/module_1.JPGLike all our kits, no chain tensioners are used in the modular drive units. The axle locations are machined to such tight tolerances that chain tensioners are not required. This is one of our key cost-cutting features in all our kits. We reduced the parts count and the cost with no impact on the ruggedness. We tried to heed the advice of Antoine de Saint-Exupery when he said "*You know you've achieved perfection in design, not when you have nothing more to add, but when you have nothing more to take away.*" But we made sure to temper our enthusiasm for that philosophy with Albert Einstein's advice: "*Everything should be made as simple as possible, but not simpler.*"  **Reduction Ratios:** These drive modules are available with either 5.6 or 3.4 to 1 reduction ratios, (the same ratios used in our kits.) The standard ratio uses sprockets with 9 and 24 teeth and the high-speed ratio uses sprockets with 13 and 21 teeth. To switch to the faster ratio you just replace the standard sprockets with our high-speed sprockets.  The following chart shows the robot's top speed using various combinations of motors and reduction ratios:     |  |  |  |  | | --- | --- | --- | --- | |  | Motor RPM | Standard 5.6 ratio | High Speed 3.4 Ratio | | **A28-400** | 4900 | 10 MPH | 17 MPH | | **A28-150** | 6000 | 12 MPH | 20 MPH | | **F30-400** | 4800 | 10 MPH | 17 MPH | | **F30-150** | 6900 | 14 MPH | 23 MPH | | **E30-400** | 5700 | 11 MPH | 19 MPH | | **E30-150** | 5600 | 11 MPH | 19 MPH |   Ten to twelve MPH is plenty fast for almost any type of educational or fighting robot so we ship all our kits with the 5.6 reduction ratio. Those who have had lots of driving practice at that speed might want to try the faster ratio so we offer a high-speed upgrade. We recommend the following motors for use with the high speed ratio: Light weight kit: Two of the A28-150 motors Middle or Heavy weight kits: Four of the A28-400 or F30-400 motors  The modular drive units (unlike our kits), are available with the high speed ratio factory installed.  **Available options:** [Six different motors](http://www.battlekits.com/robot_motors.htm) [High-speed gearing](http://www.battlekits.com/#ratio)  **Specifications:** Ships fully assembled with 5.6 or 3.4 reduction ratio Length: 10.5" Weight Bare: 5.1 Lbs. Weight with E30-150 motor: 8.7 Lbs **Visit our** [**order page**](http://www.battlekits.com/battle_kits_order.htm) **to place your order.**    **Low Cost** An important goal when designing and specifying components for these kits was keeping the cost low. We have achieved surprisingly low prices by:   * Standardizing as many components as possible * Using the fewest number of parts required to get the job done * Buying our components in high volumes     **Visit our** [**order page**](http://www.battlekits.com/battle_kits_order.htm) **to order your kit. For more information, or to order individual components please visit these pages:**  **\*** [**Visit the Motors page**](http://www.battlekits.com/robot_motors.htm) **\*** [**Visit the Batteries page**](http://www.battlekits.com/batteries.htm) **\*** [**Visit the AmpFlow Controllers page**](http://www.battlekits.com/controllers.htm) **\*** [**Visit the Wheels page**](http://www.battlekits.com/robot_wheels.htm) \*   [**Visit the Radio Control page**](http://www.battlekits.com/radio_control.htm)    [**Order your robot now!**](http://www.battlekits.com/battle_kits_order.htm)       |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | Top of Form   |  |  | | --- | --- | | Fill out your e-mail address to receive our newsletter! | | |  |  | | Subscribe Unsubscribe | |   Bottom of Form |   [Home](http://www.battlekits.com)  |  [Motors](http://www.battlekits.com/robot_motors.htm)  |  [Gearmotors](http://www.battlekits.com/gearheads.htm)  |  [Motor Controllers](http://www.battlekits.com/controllers.htm)  |  [Batteries](http://www.battlekits.com/batteries.htm) [Remote Control](http://www.battlekits.com/radio_control.htm)  |  [Wheels](http://www.battlekits.com/robot_wheels.htm)  |  [Wheelmotors](http://www.battlekits.com/wheel_motors.htm)  |  [Contact](http://www.battlekits.com/contact.htm)  |  [Order](http://www.battlekits.com/battle_kits_order.htm) |