

Parts of a Combat Robot

Armor/Body: This protects a robot from damage. It can be aluminum, steel, titanium, polycarbonate, or special alloys and metals. (\$0-\$2000)

Batteries: The heart of a robot. These supply the power to all the systems. They are usually 24 or 36 volt NiCad, NiMH, SLA or Lilon cells. (\$40-\$500)

Transmitter: This is what you use to remotely operate your robot, they come in many styles, and are also used for R/C planes and cars. (\$60-\$500 - not shown)

Radio Receiver: Takes the signal from the transmitter, and turns it into a pulse width modulated (PWM) signal that the speed controller can use. (\$20-\$100)

Speed Controllers: A complex electrical device that bridges the receiver, batteries, and motors. It converts the PWM signal from the receiver and feeds the motor the corresponding power from the battery packs. (\$50-\$700)

DC Motors: These make the robots and their weapons (e.g, spinners) move. They can be salvaged from junkyards or bought from specialty shops. (\$0-\$1000)

Gearbox: These enclosed gears increase the motors torque (force) and make the robot easier to manage and significantly more powerful. (\$20-\$300)

GearMotors: Motors and gearboxes that come as a single part. (\$0-\$700)

<http://botleague.net>

Sprockets, Pulleys and Bearings: Used for both spinning weapons and drive-trains. Bearings hold axles in place to spin weapons or gears. Sprockets are toothed discs with chains like you'd find on a bicycle. (\$0-\$50)

Chain/Belt: Chains and belts can be used for both spinning weapons and to connect wheels to gearboxes or other wheels. (\$0-\$100)

Wheels: These take the power from the gears to make your robot go and come in hundreds of materials and diameters and can be found anywhere. (\$0-\$100)

Spinning Bar: A typical high-energy weapon. These are mounted horizontally as shown or vertically. They can also be discs, or entire shells. (\$0-\$300)

Flipping Arm: One of the many kinds of weapons you could have. Flippers get under the robot and throw them into the air. (\$0-\$100)

Pneumatic Ram: The output from a pneumatic system. These can be used for a flipper, a hammer, a ram, or other similar weapons. (\$50-\$150)

Air Tank/Pneumatic Regulator: Air tanks are used in Pneumatic systems, usually canisters from paint-ball CO2 weapons or fire extinguishers. (\$0-200) Regulators ensure the tanks proper pressure. (\$75)

