

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.

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.

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.

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

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.

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

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

GearMotors: Motors and gearboxes that come as a single part.

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.

Chain/Belt: Chains and belts can be used for both spinning weapons and to connect wheels to gearboxes or other wheels.

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.

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

Flipping Arm: One of the many kinds of weapons you could have. Flippers get under the robot and throw them into the air.

Pneumatic Ram: The output from a pneumatic system. These can be used for a flipper, a hammer, a ram, or other similar weapons.

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

