

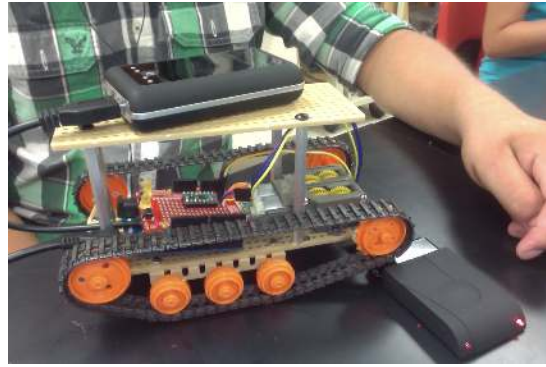
Tips on Building the RC Tank

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Building the Twin-Motor Gearbox was one of the more challenging parts in the project. There are two ways to build your motor. To ensure that the tank goes at a faster speed, type A or B are ideal. To start off, use the A port to help position the pinion gear and the gear hub. The picture is helpful. It's important to note that only one gear hub needs to be secured. Reason being, if both are secured, the motors will lose independence.



On the tracks it's best to use the larger road, drive and idler wheels. Moreover, ensure that when you mount the wheels you make enough space for the motor and the Arduino. The plate sets also need to be drilled in corresponding places. The stands will be placed there in order to mount the second plate set.



The protoshield assembly is pretty straight forward. The resistors and capacitors are not polarized. Thus, direction doesn't matter when they are being soldered in the protoshield. The resistors are 10k and 330k. They can be distinguished by their color code. The capacitors will go on the rectangles with the line in the middle. On the backside of the protoshield there are two semicircles with a flat edge. This is where the LEDs will be placed. Because they're polarised, it's important to note that the cathode (short leg) will go next to the flat edge on the semicircle. The buttons will be placed where the square footprint with the circle in the middle are. The headers will be placed in the outermost position of the board. Keeping them as parallel as possible to the board will make it easier to mount to the Arduino.

