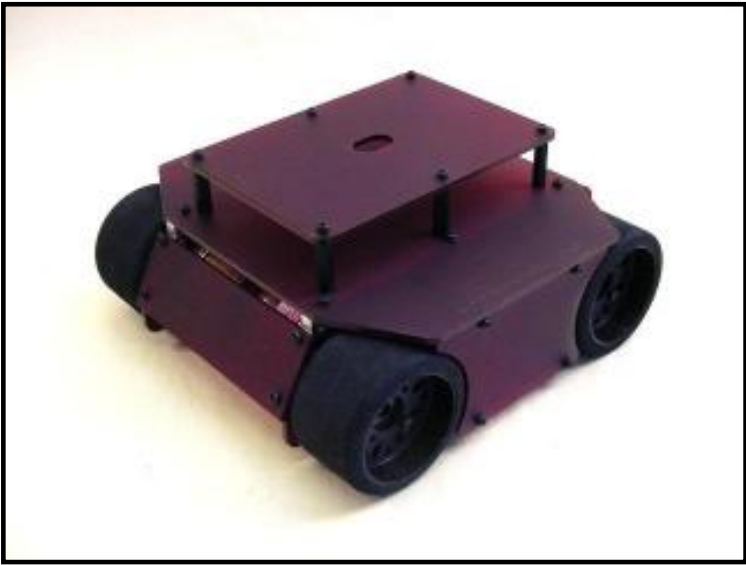


# Terminator Online Assembly Instructions.

**Safety first!** Wear eye protection and never touch a powered robot!



Terminator

## Chassis Assembly

**Step 1.** Install the aluminum bars to the left side panel as shown. The body panels have a "good" side, which is dull in appearance. Use 6 of the 4-40 x 3/8 screws for each side as shown. Install 4 of the 4-40 x 5/8 screws from the inside. Make a mirror image for the right side.

Note: Do not use thread lock as it may damage the plastic.

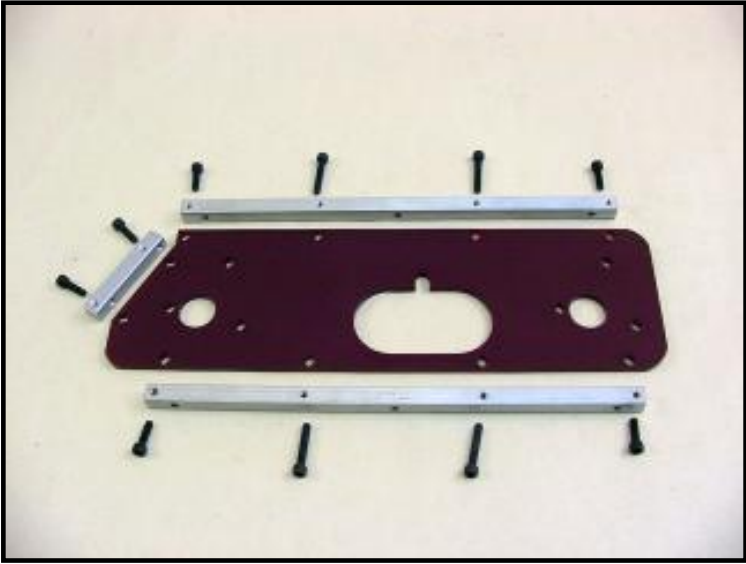
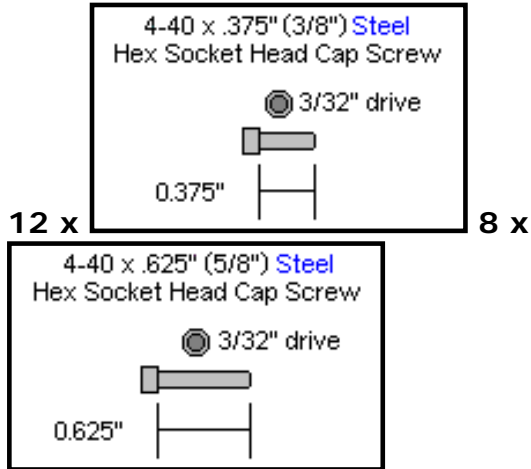


Figure 1.

**Step 2.** Install 4 of the 1-1/2" spacers onto the 4-40 x 5/8 screws that were installed in the previous step. Tighten them down till the flat side is lined up with the panel and aluminum bar as shown in figure 2. Mirror for the right side.



Figure 2.

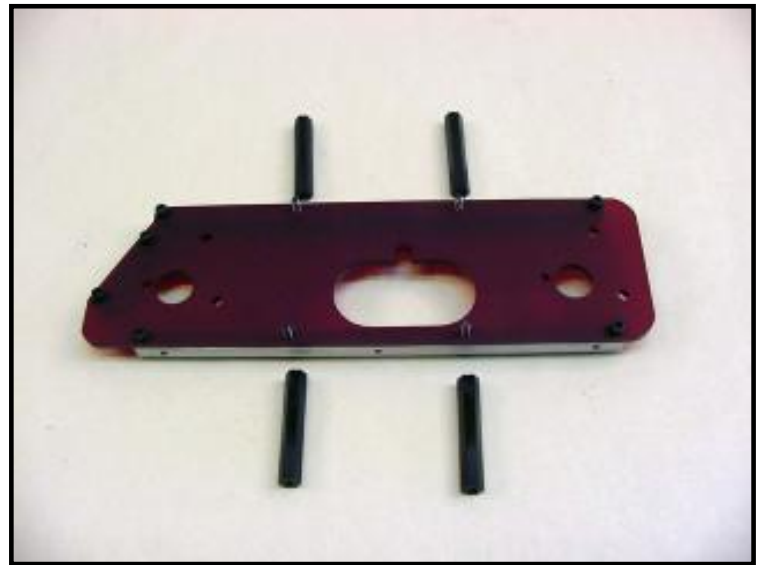
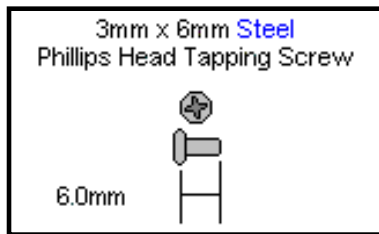


Figure 3.

**Step 3.** Time to install the motors. Be sure the use the 3mm x 6mm screws, they're the shiny ones with the Phillips head.



12 x

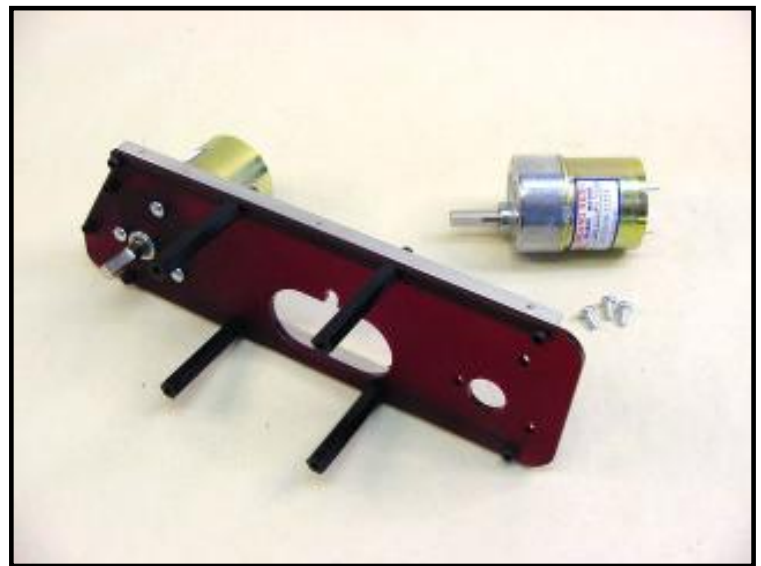


Figure 4.

**Step 4.** Solder the cap across the terminals as shown. Make sure you put the red to (+) and the black to (-). This will make wiring the speed controllers easier later on. Use at least 20 awg stranded wire and cut to a length of about 6".



Figure 5.



Figure 6.

**Step 5.** Align the two halves of the robot as shown and install the bottom panel. Now the robot will start to take shape.

4-40 x .375" (3/8") **Steel**  
Hex Socket Head Cap Screw

3/32" drive

0.375"

6 x

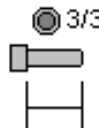


Figure 7.

**Step 6.** Install the 1" spacers into the top panel using 6 of the 4-40 x 3/8 screws. The screws go in from the back and protrude from the "good" side.

4-40 x .375" (3/8") **Steel**  
Hex Socket Head Cap Screw

3/32" drive

0.375"

6 x

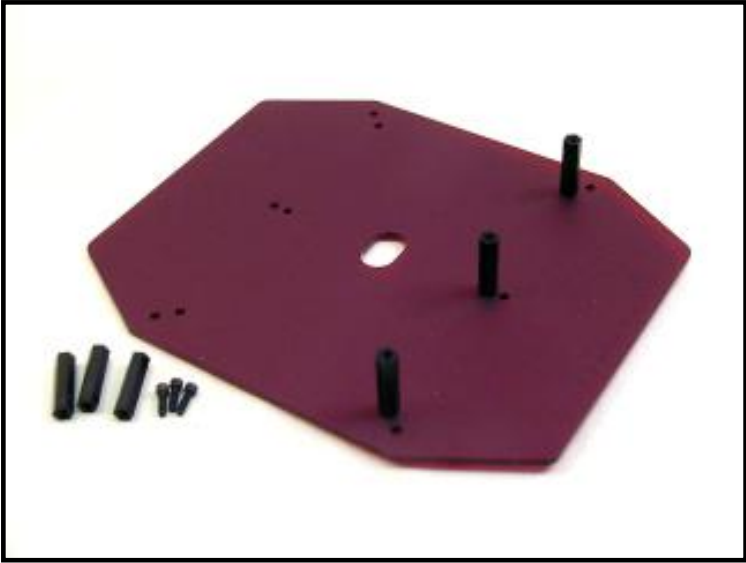
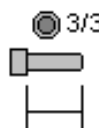


Figure 8.

**Step 7.** Install the lid onto the robot using 6 of the 4-40 x 3/8 screws.

4-40 x .375" (3/8") **Steel**  
Hex Socket Head Cap Screw

3/32" drive

0.375"

6 x




Figure 9.

**Step 8.** Install the top onto the robot using 6 of the 4-40 x 3/8 screws.

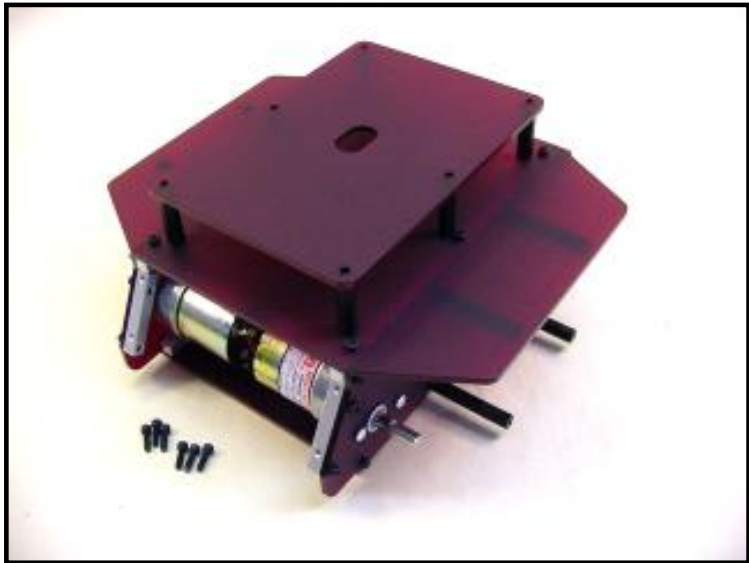


Figure 10.

**Step 9.** Install the hubs. First put the set screw into the plastic hub. Adjust the hubs so they are about 1/4" from the side panel. Then torque it down tight.

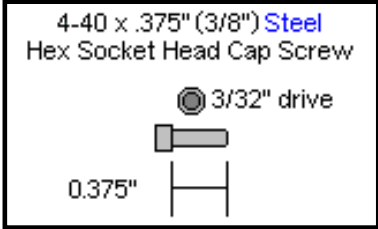


Figure 11.

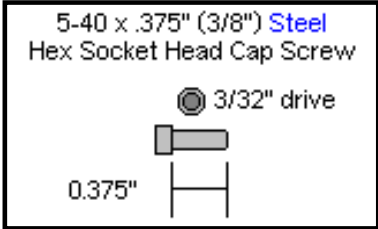
**Step 10.** Install the wheels onto the hubs using 2 of the 5-40 x 3/8 screws per wheel.



Figure 12.



6 x



8 x

**Step 11.** Install the front scoop mount plate as shown. Use 4 of the 4-40 x 3/8 screws. Depending on how you configure your scoop you may need to reinforce this, or make another from aluminum using this as a template.

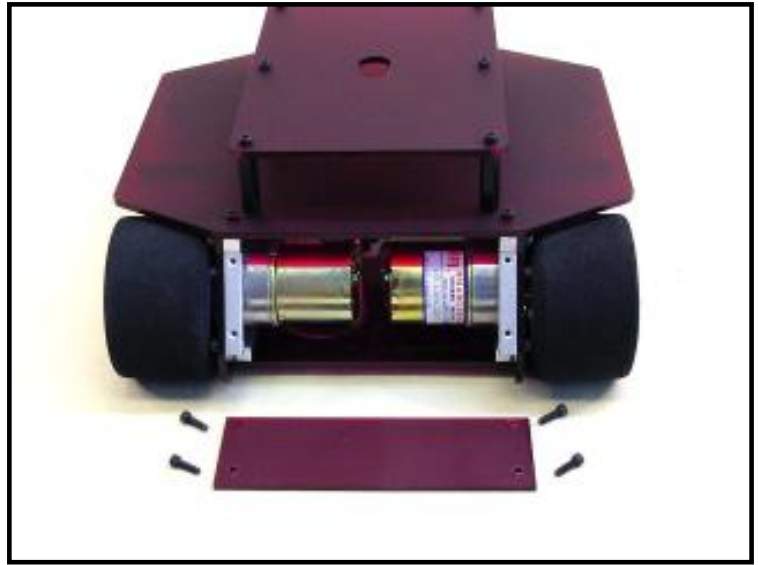
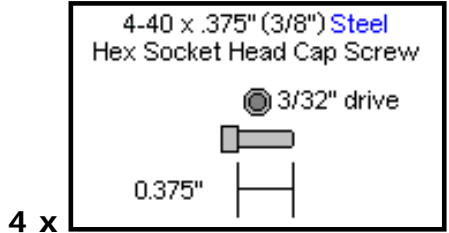


Figure 13.

**Step 12.** Install the fenders as shown.

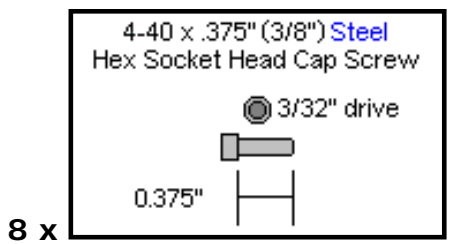


Figure 14.

**Step 13.** Here is a simple way of wiring the drive system. Crimp the connectors and install them as shown. In the middle is a mating connector for the 7.2vdc and 8.4vdc batteries. Use foam double sided tape to hold the terminal strip inside the compartment.



Figure 15.

**Step 14.** If you are using the SP-560 speed controllers cut off the connectors and install the stake-on connectors as shown. I also remove the power switch and hardwire them on. Use foam double sided tape to mount the controllers inside the body. If you follow the color code the motor rotation direction should be correct.



Figure 16.

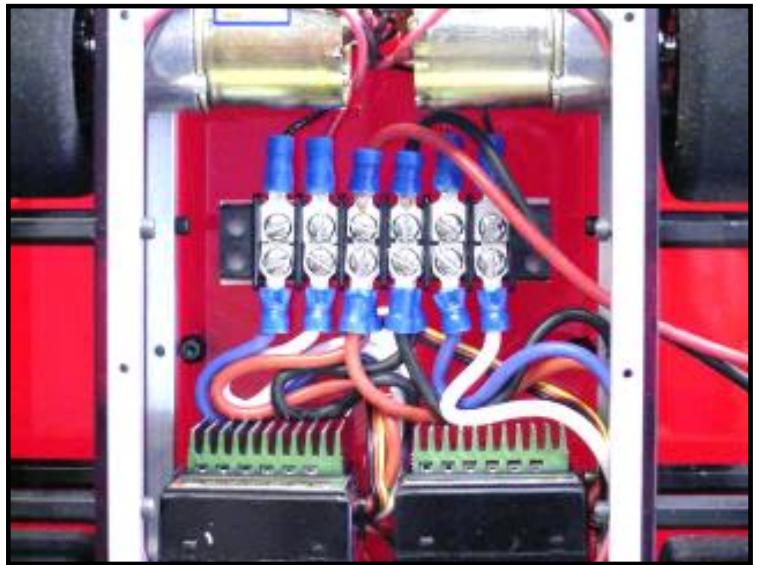


Figure 17.

### Remote control

The speed controllers provide the power for the RC receiver. You need to pull the red wire from one of the two speed controllers (see figure 18 and 19). If both of the speed controllers try to power the RC receiver one of their regulators will be damaged. Then, simply plug the two speed controllers into the RC receiver and away you go!

### Microcontroller control

You should pull both of the red wires from the speed controllers when connecting them to the Next Step (see figures 18 and 19). This will prevent damage to either the Next Step or the SP-560s.

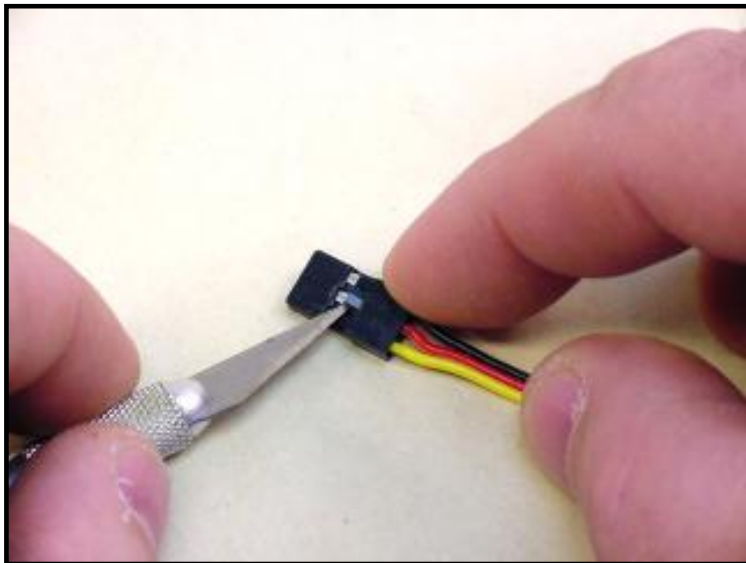


Figure 18.

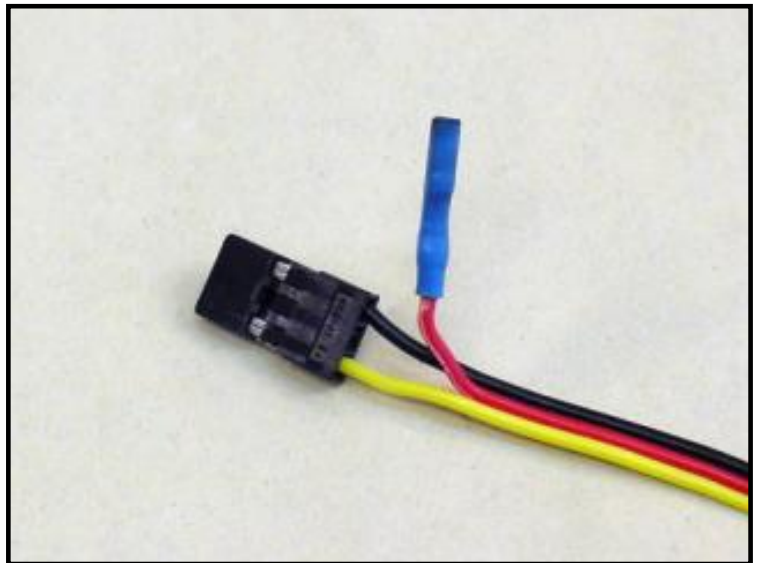


Figure 19.