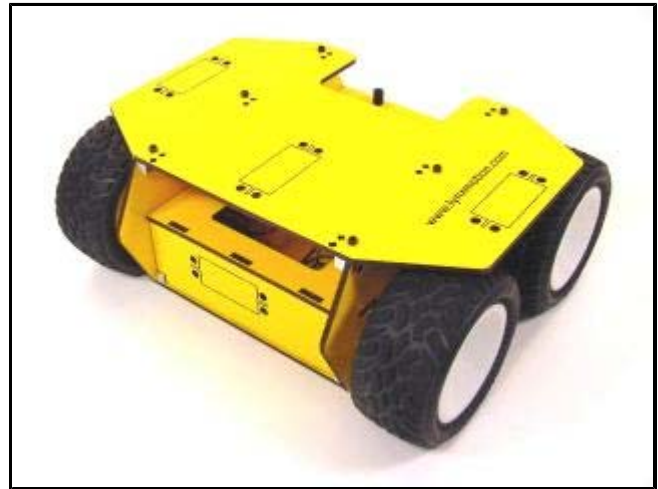


4WD Rover I Online Assembly Instructions Rev. 4.

Updated 01/04/2005

Print this out and get the kit.

Note: Do not use Loctite or thread locks on the chassis assembly. They are not necessary and may cause damage to the Lexan.



4 Wheel Drive Rover I

Step 1.

Install the motors into a side panel as shown. The motors can go into the panels in two configurations. Put the motor's shaft through the top hole if you want the body close to the ground; this is useful for indoor operation. Use the bottom hole if you want more ground clearance; this is useful for outdoor operation. Use six of the 3mm x 6mm metric screws for each side as shown. Make a mirror image for the right side.

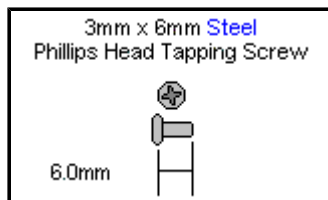
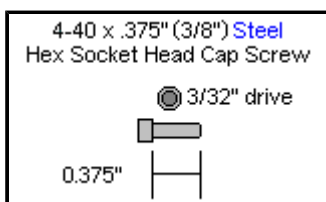


Figure 1.

Step 2.

Install two of the aluminum bars as shown in figure 3. Use 8 of the 4-40 x 3/8 screws for each side. Mirror for the right side.



8 x



Figure 2.

Step 3.

Wire the motors in parallel. Solder the cap across the terminals as shown in figure 4-2. 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 12". Mirror for the right side.

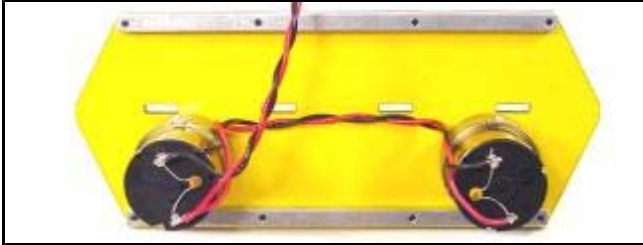


Figure 3-1.

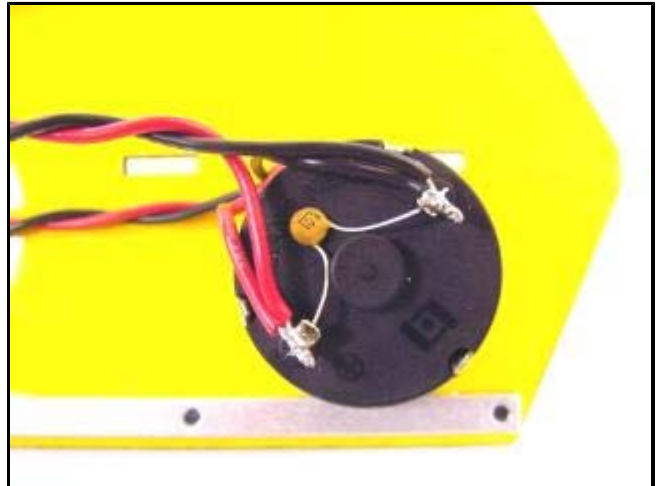
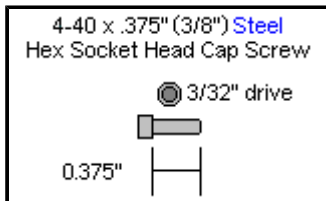


Figure 3-2.

Step 4.

Orient the two sides as shown to install the bottom panel. Use six of the 4-40 x 3/8 screws.



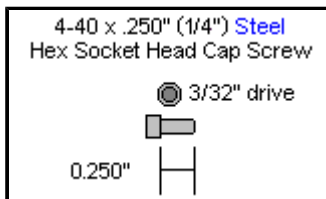
6 x



Figure 4.

Step 5.

Attach the nylon spacers to the middle panel. Use eight of the 4-40 x 1/4" screws. You will have eight additional 1/4" screws to attach your electronics.



8 x

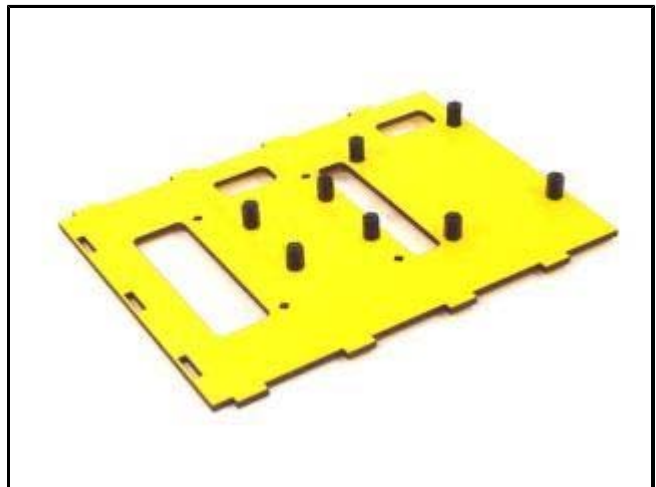


Figure 5.

Step 6.

Install the front and middle panels. Put the front panel in place first. The side panels should bend outward and allow the others to slide in with no difficulty.



Figure 6.

Step 7.

Install the top panel. Use six of the 4-40 x 3/8 screws.

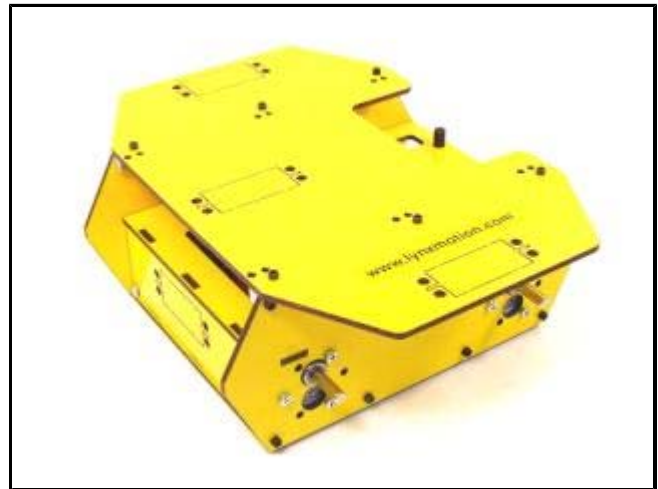
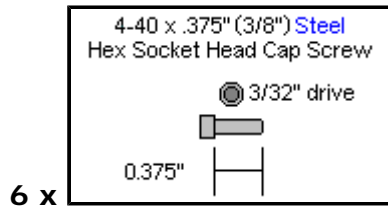


Figure 7.

Step 8.

The tires have a directional pattern, meaning that if you don't attach them to the correct sides the pattern won't match. This is just an aesthetics problem. More information on mounting the tires to the rims can be found [here](#). To install the wheels onto the chassis, first put the set screw into the aluminum hub. Then bring the aluminum hub to the wheel rim from the back, and install the 5/8" x 8-32 screw to attach the hub to the rim. Now slide the whole assembly onto the motor shaft and align the set screw over the flat on the shaft. Tighten until it touches then slide the hub in as far as possible. Then torque it down tight.

Note: It may be necessary to use Loctite on the 8-32 screw to prevent the rim from working loose on the hub.



Figure 8.

Additional Decks.

The 4WD1 platform can have additional decks added on. To add a deck, you will need to remove the top panel. Use 6 of the 4-40 x 3/8" screws to attach 1-1/2" nylon hex spacers to the inside holes. Make sure you use the same hole in each hole group! Reattach the top panel, and then use the other 4-40 x 3/8" screws to attach the optional deck to the top panel. You can add as many decks as you'd like.

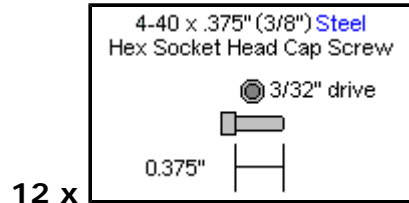


Figure 9.