Version 1.1

RC4WD TrailFinder
Instruction Manual

Thank you for your purchase. Welcome to the RC4WD family. This kit is a combination of many specially engineered and manufactured parts. Enjoy your build.

This is a complete instruction manual for the Trail finder truck kit. We have tried to detail as many things in the build process as possible. Since the kit has so many options available it is hard to cover all of them. This manual covers the basic kit.

If for some reason you don't find enough detail here, or you are having issues with your build please visit RC4WD Trail Finder forum here.

You will need to have a few things for this build.

Metric Hex Wrenches
Pliers
Monster Lube X-0317
Blue Thread locker

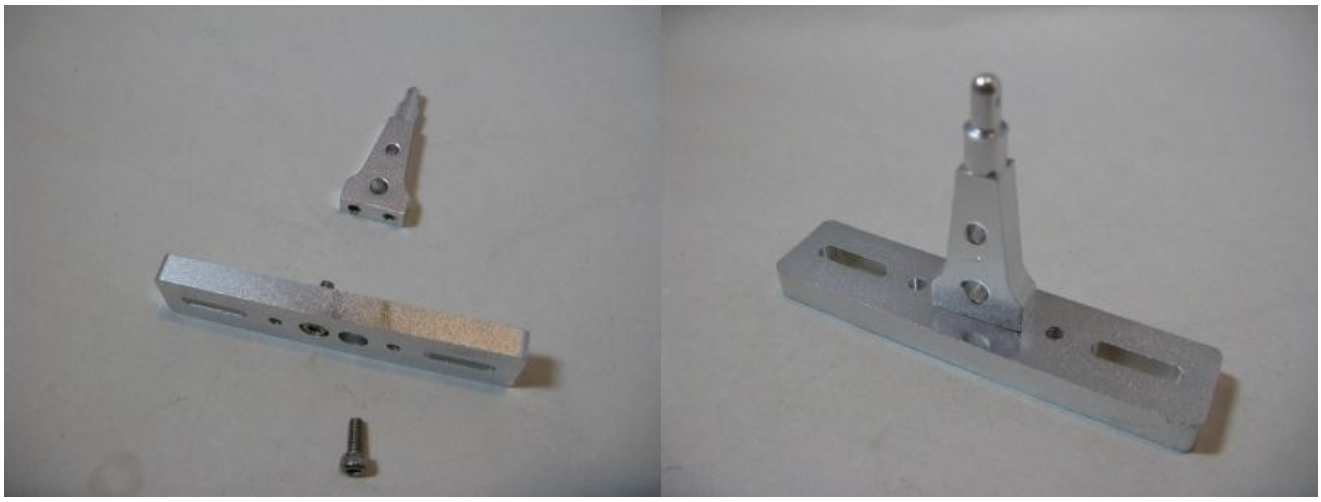
The first thing you will want to do is unpack your truck kit. Be careful with the parts when unpacking and make sure to inventory all your items.

When you build this kit you may want to use some Blue thread locker on the metal to metal parts. The included nuts have nylon inserts to prevent them from backing off, but all other metal to metal surfaces will stay in place better with the thread locker. Anytime you see an *, this notes the need for thread locker. (*please be sure to get blue thread locker, it is removable.***)**

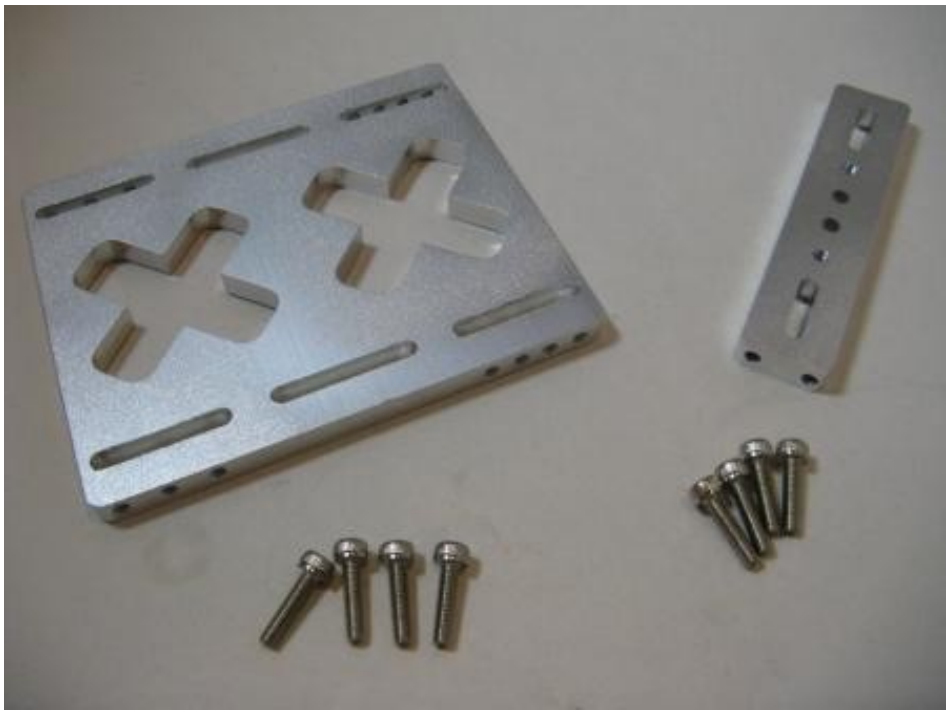
Step 1. Chassis Assembly

Here we need to get the Mirek chassis plates and the cross mounting plates so we can make the assembly. Here are the parts we need below.

The first thing you will want to do is install the front body mounts to the small cross plate. You will need (2) M3 x 8mm SHCS. Install the screws thru the large holes in smaller cross plate. *

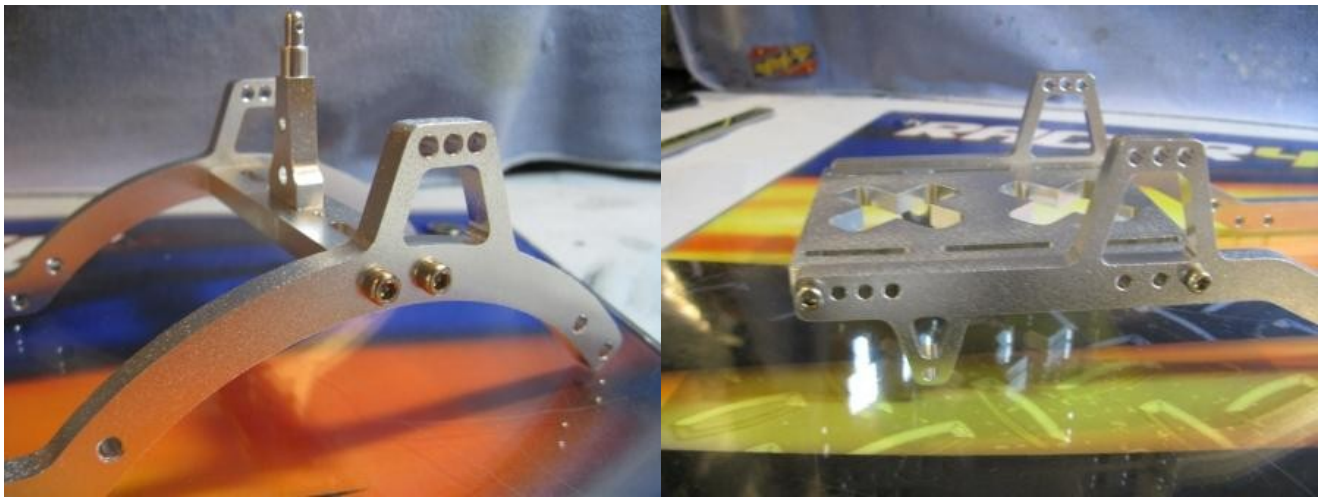


Next you will mount the plate to the left and right Mirek chassis plates. You will use (4) M3 x 10mm SHCS on the front cross plate, (4) M3 x 8mm SHCS on the rear cross plates. This shows the front and rear plate. The smaller one is the front mount. *



Installed

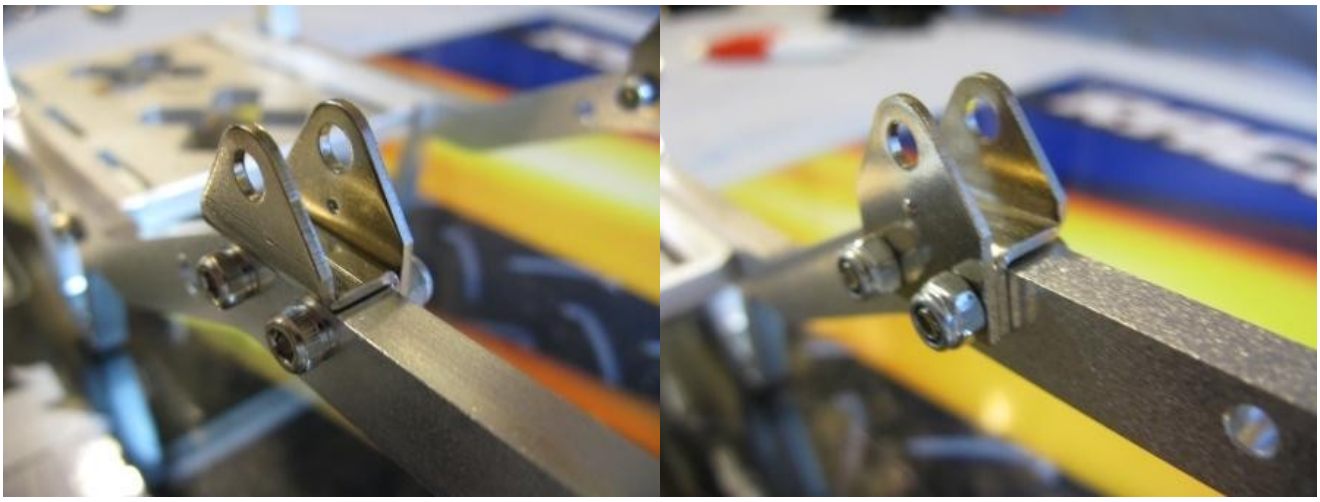
Front **Rear**



Step 2. Installation of the Stationary Shackle Mounts.

In this step we will install the stationary shackle mounts. Below is what we are installing. Please pull these out of your parts box along with (8) M3 x 12mm SHCS and Nuts.

You will want to install these to the Mirek chassis. Make sure that the heads of the screws face to the outside of the chassis. You can see in the photo below how to mount them to the chassis.



In this photo you can see the proper location of the mounts.

Step 3. <u>Swinging Shackle Mounting</u>

The swinging shackle mounts are very important to get installed correctly. If they are installed the wrong way they will cause the suspension to bind. Be careful to follow the instructions closely.

Here is what you are installing. You will also need (4) M3 x 16mm SHCS, (8) flat washers and (4) nuts.

When installing the swinging shackle you will want to put a washer on the inside of each shackle. You can see in the photo below. When you install the SHCS and nut, tighten the nut all the way down then back the nut off a 1/4 to 1/2 turn. You want these shackles to swing easily. These will be installed on the first hole on the front of the chassis, and the rear lower mount on the back of the chassis

Step 4. <u>Axle Lubrication</u>

When the axles are shipped from RC4WD they do not come with lubrication. You will want to get some of RC4WD's Monster Lube. Part number X-0317. You will want to remove the screws on the covers of both axles. Then apply a liberal amount of the Monster Lube to the main gear. Reinstall the cover and use a small amount of thread locker on the screws to prevent them from backing out.

Step 5. Mounting of the Leaf Springs to the Axles

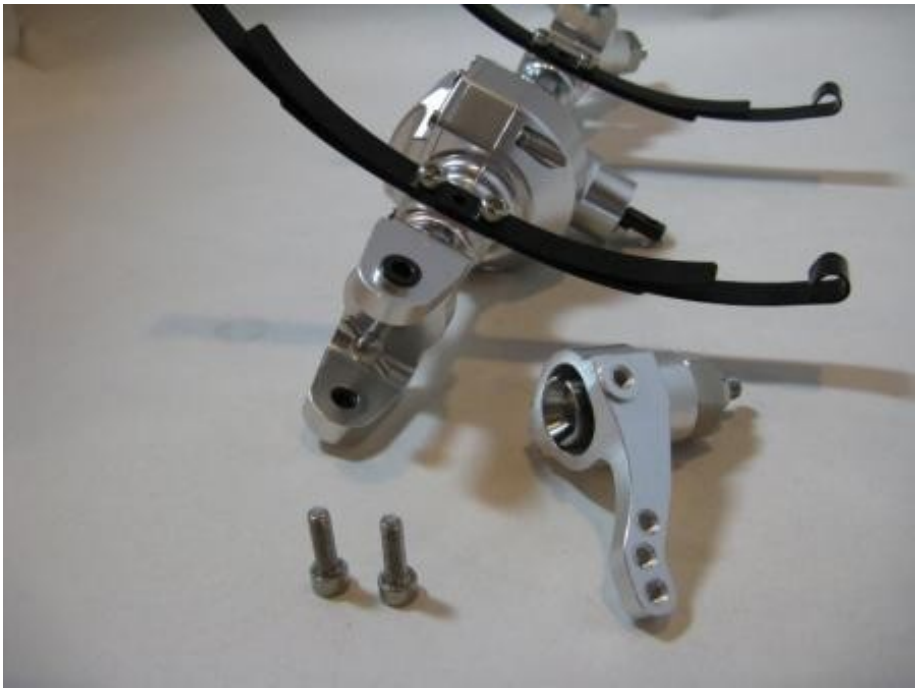
Remove all the leaf springs from there bags. There should be 3 in each package. A small, medium and large leaf spring. In this step you will also need the front and rear axle. To install the leafs to the axle you will need (4) M3 x 8 SHCS for each axle.

You can install the leaf springs in different combinations on the truck. Here we show you the factory installation. You may want to change or modify this set-up depending on you truck and driving conditions.
Install the leaf springs with the small one first, then install the main leaf that attaches to the shackles, and then the medium size leaf spring. Use the SHCS to secure them to the axles. *

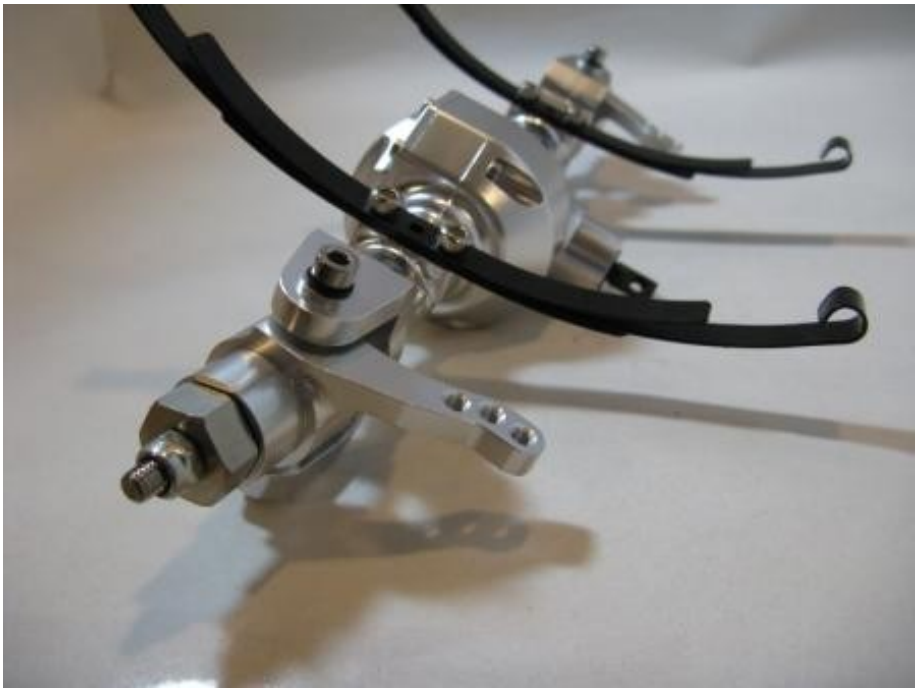
Step 6. <u>Behind the Axle Steering</u>

Behind the Axle Steering (BTA) is the way the Trail Finder was designed. You again may want to have the steering links in the front of the axle. We show you here how to reverse the knuckles to allow for BTA steering.

Remove the two screws that hold the steering knuckles to the front axle, like shown in this photo.

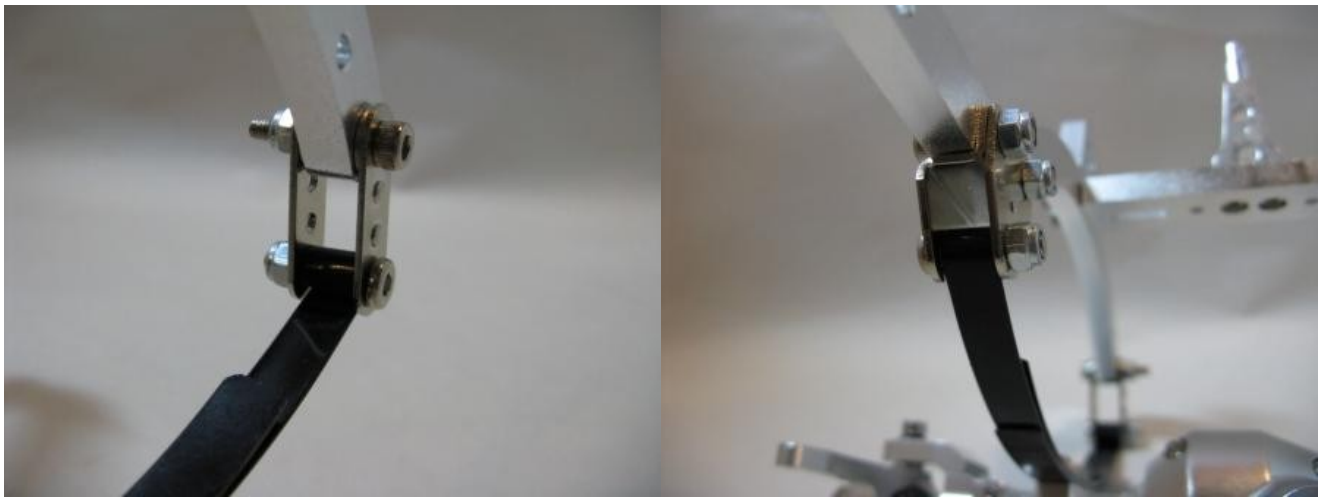


Reverse the sides that they were on making sure that the steering arm is facing toward the pinion side of the axle. (*see photo below*) Reinstall the two screws with a small amount of thread locker. <u>Be sure not to tighten the screw all the way down.</u> It will hinder the steering performance and will overwork the steering servo.

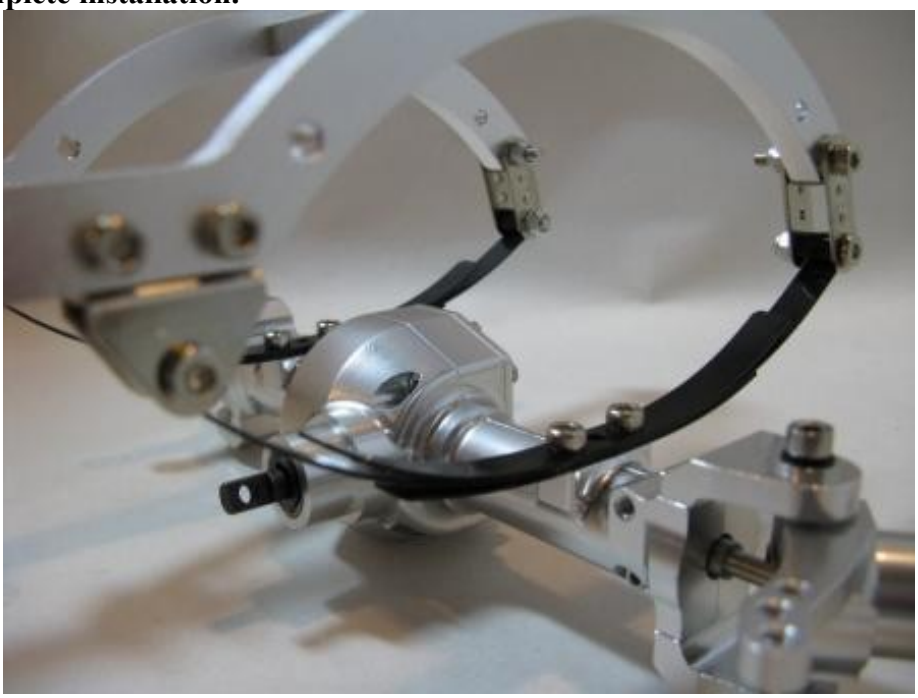


Step 7. <u>Mounting the Axles with Leafs to the Mirek Chassis</u>

To perform this installation you will need (8) Shoulder screws from your parts box with (8) nuts. The shoulder screws have threads only on a small portion on the screw. It may be easier to turn the chassis over to do this install. Insert the Leaf mount into the Shackles mounts. Insert the Shoulder screw thru the holes and add the nut. Tighten the nut all the way down then back the nut off a 1/4 to 1/2 turn. Make sure that everything moves freely.



This shows the complete installation.

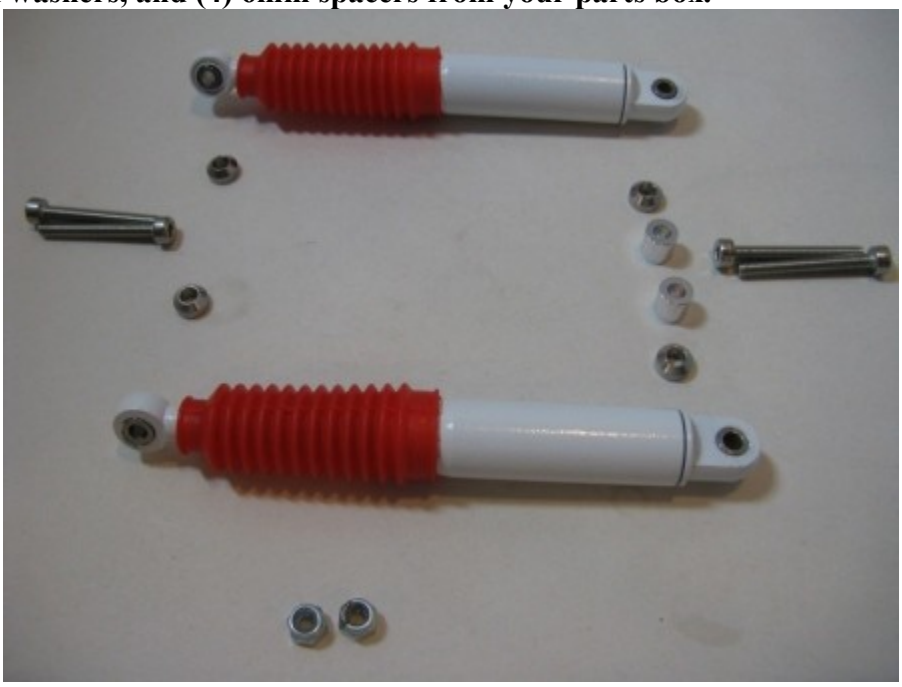


Step 9. <u>Shock Boot Installation</u>

Remove the lower shock mount. Remove your shock boots from there bag and install the larger opening onto the shock shaft first. Reinstall the shock end using a very small amount of thread locker.

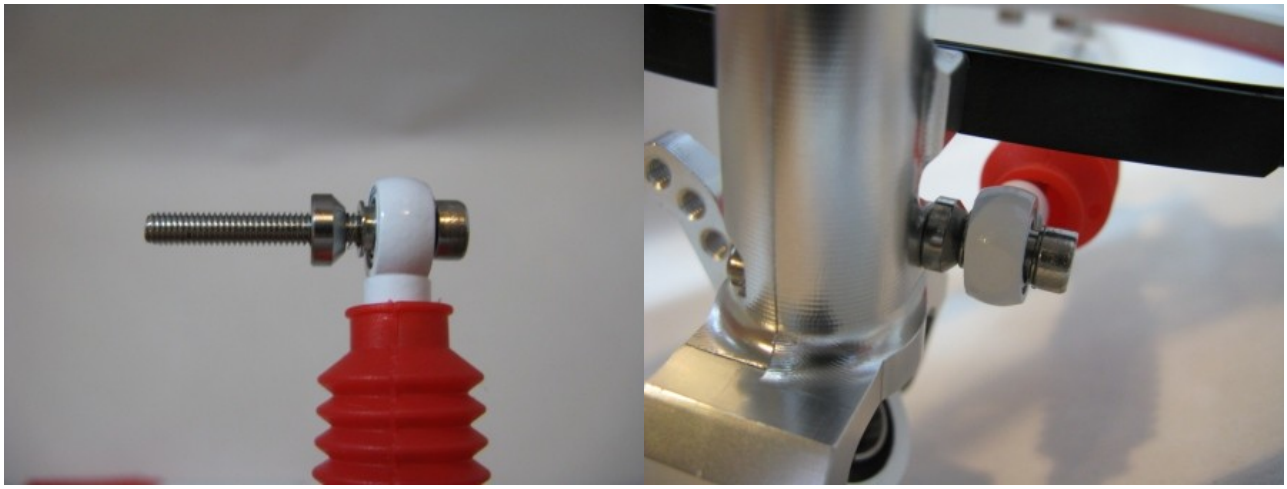
Step 8. <u>Shock Mounting</u>

You will now install the shocks to the axles and chassis. You will need to remove (8) M3 x 25mm SHCS, (4) nuts, (8) Conical washers, and (4) 6mm spacers from your parts box.



Please look at the photos below for more detail on installing the shocks.

First you will want to install the lower shock mount to the axle. Using a M3 x 25mm SHCS insert the screw thru the lower shock mount and on the other end insert the conical washer onto the screw. At this point you can install the shock to the axle. *

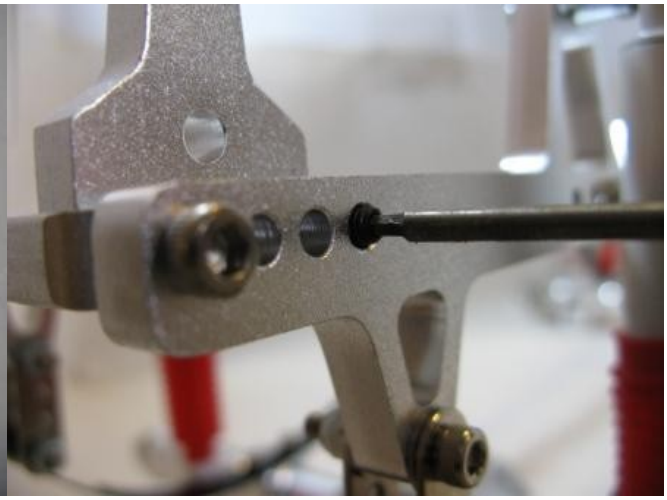


Now you can insert the other M3 x 25mm SHCS into the top of the shock mount. Slide a Conical washer on along with a 6 mm spacer. Put the screw thru the hole in the upper section of the Mirek chassis and install a nut.

At this point you should have something that looks very close to this.

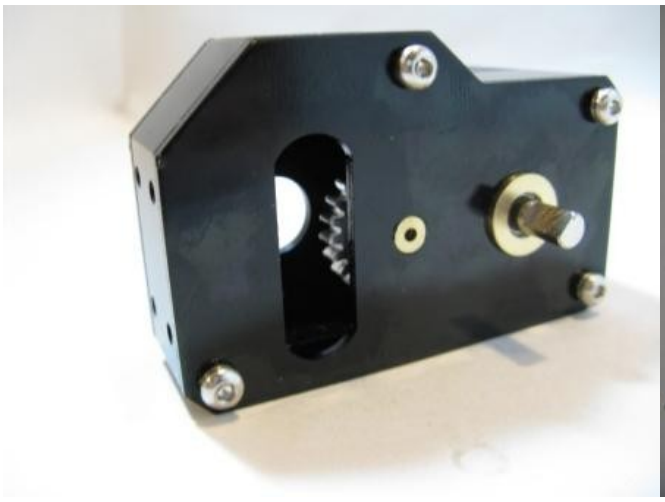
Step 9. <u>Rear Body mount Install</u>

Since there are so many different bodies out there you may have to alter the location of these body mounts. This shows you how to install the mounts.
Get your rear body mounts out of your parts box along with (2) M3 x 8mm SSS. (*note first photo below*) Install the body mount in the slots of the rear cross brace and insert the Socket Set Screw into the side of the chassis making sure to look and see that there are threads in the hole. *



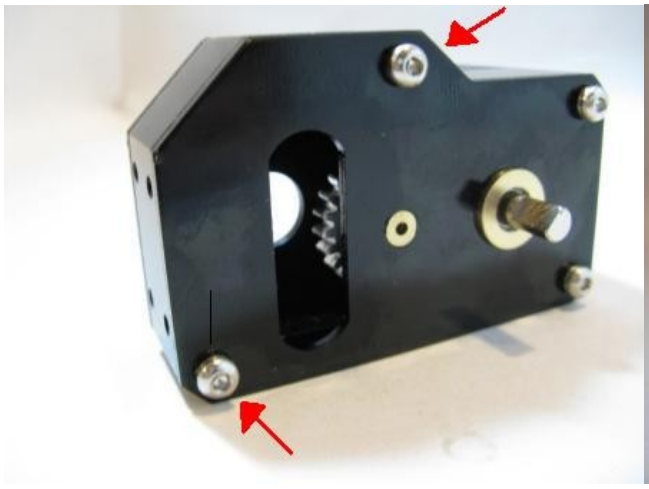
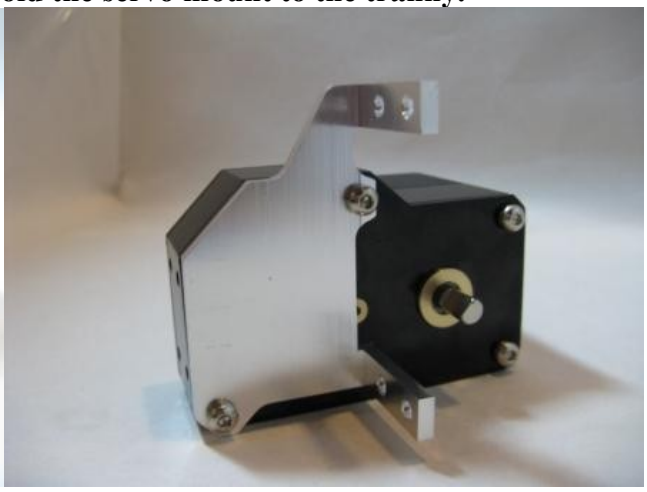
Step 10. <u>R2 2 Speed Servo Mount Install.</u>

You will need to remove your R2 2 speed transmission and your servo mount. (*see photo's below*) You will need to remove a few other items from your parts box. Below is the list of items.
(1) M3 x 10mm SSS, (1) M3 x 20mm SSS, (1) M3 x 25mm SHCS, custom spacer, conical washer, and a standard washer. You will also see that you need the short link, the round sleeve, a long rod end and a short rod end.

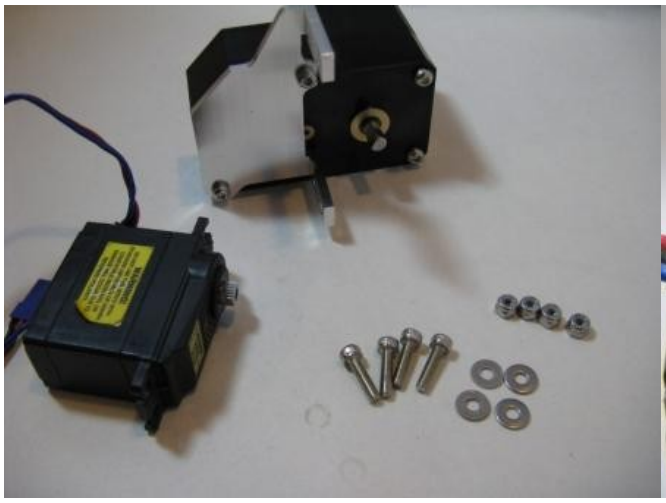


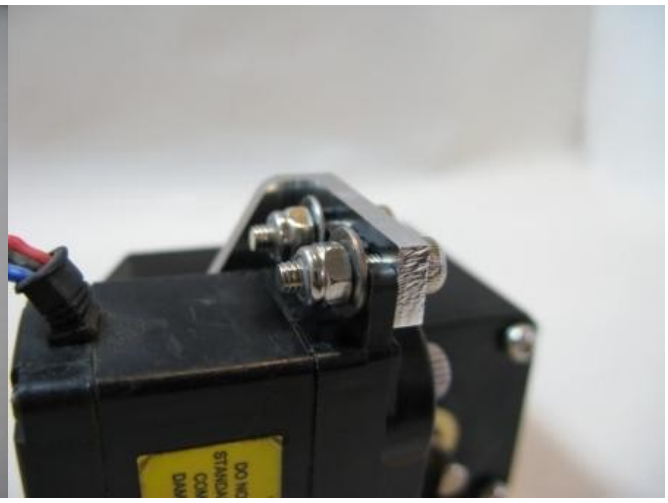

A. **First you will build the shift link. In the first photo you can see the items needed. ***


B. **Now you can install the servo mount to the transmission. (*before doing this you may want to install the motor using the included gear, set screw, and mounting screws*) You will need to remove two screws from the transmission. These screws will then be used to hold the servo mount to the tranny.**

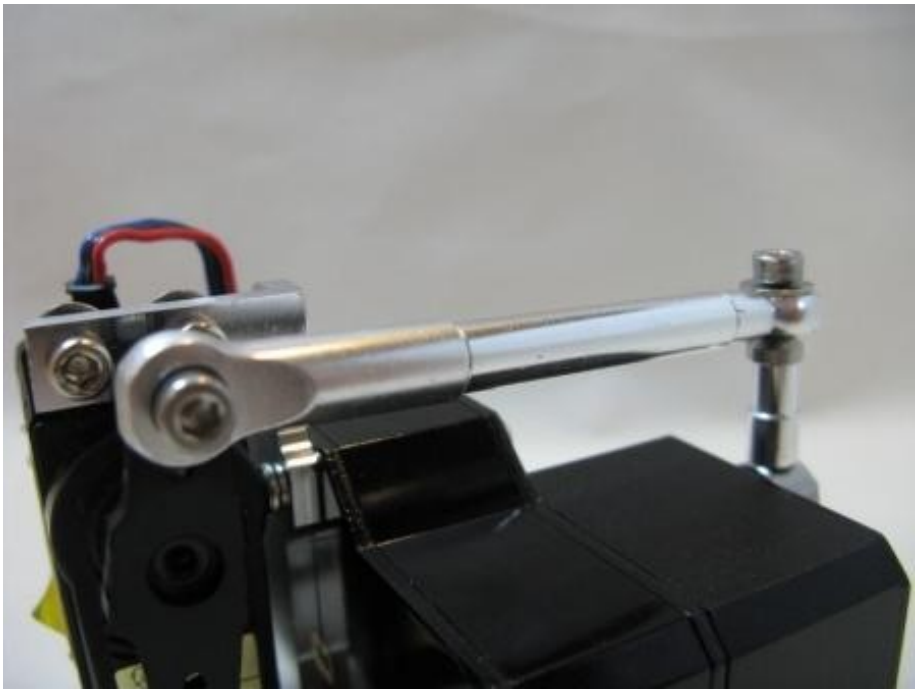
C. **Installation of the servo is needed in order to complete the rest of the link set-up. You need to pull (4) M3 x 12mm SHCS, (4) nuts and washers. Install the servo with the servo ears on the backside of the mount. <u>If you mount the servo wrong the Punisher shaft may hit the servo.</u>**





D. **You can now install the shift link that we made in step A. You can use your own hardware to mount the long link to the servo. Below the parts shown in the first photo will be used to attach the link to the shift shaft coming out of the tranny.**
Install a washer onto the M3 x 25mm SHCS, then insert the screw into the short side of the rod end. Install the conical washer first and then the custom spacer. Install the SHCS into the round sleeve. Then install the round sleeve onto the shift shaft and tighten the screw all the way down. *

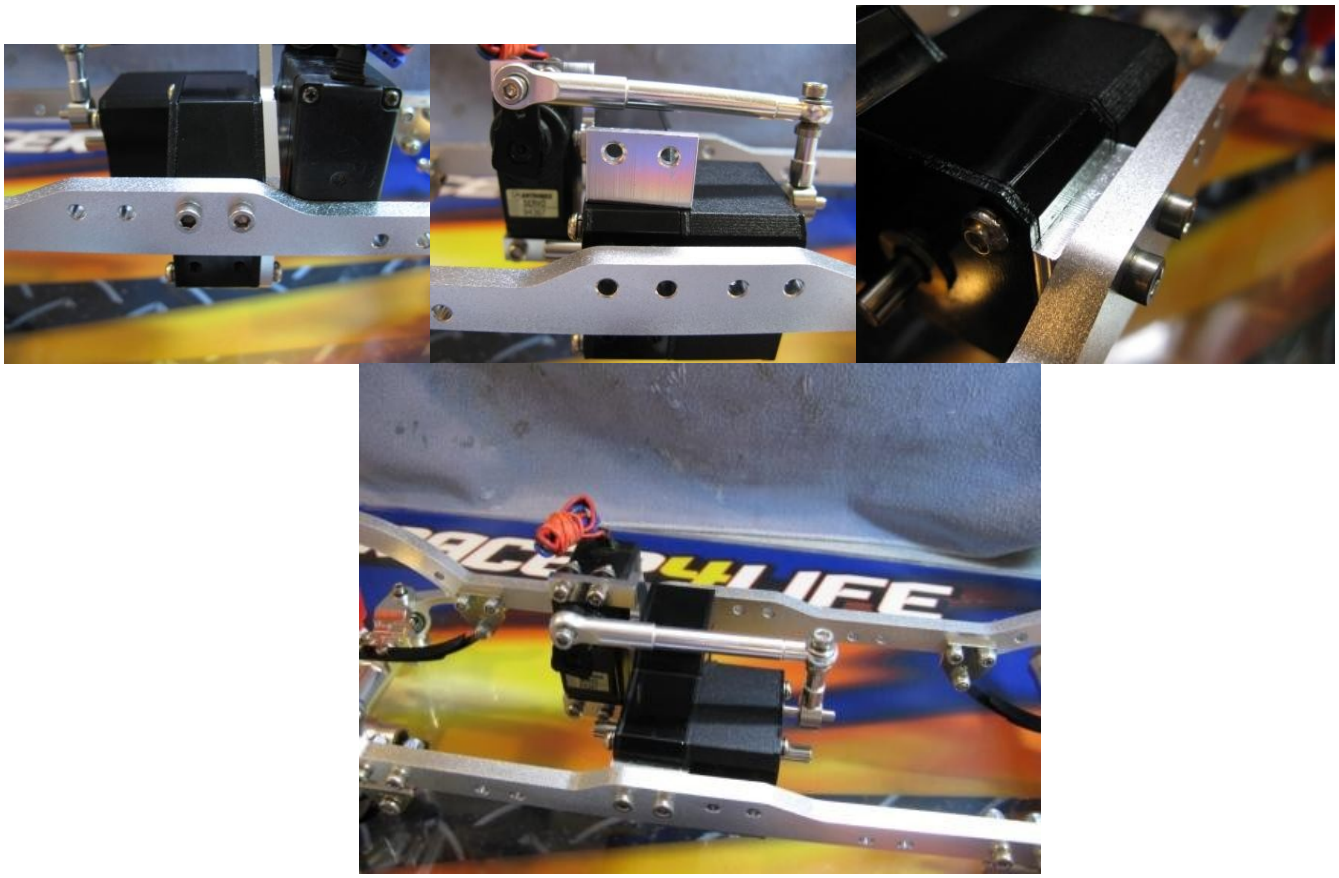
It should look like this when done.



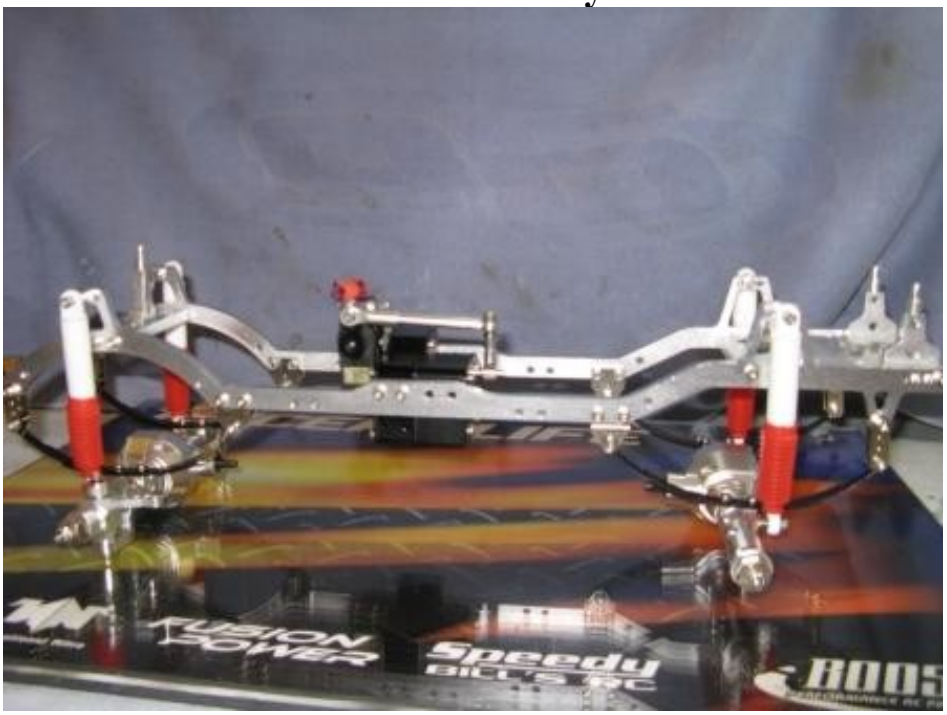
Step 11. <u>Transmission installed in the Mirek Chassis</u>

In this step you will need the small tranny spacer included in the parts box. You will also need (2) M3 x 10mm SHCS and (2) M3 x 12mm SHCS. (Parts shown below)

You will need to use the shorter 8mm screws to mount the side of the tranny without the spacer. The longer 12mm screws on the side with the spacer.



Here is another shot of what you should have.

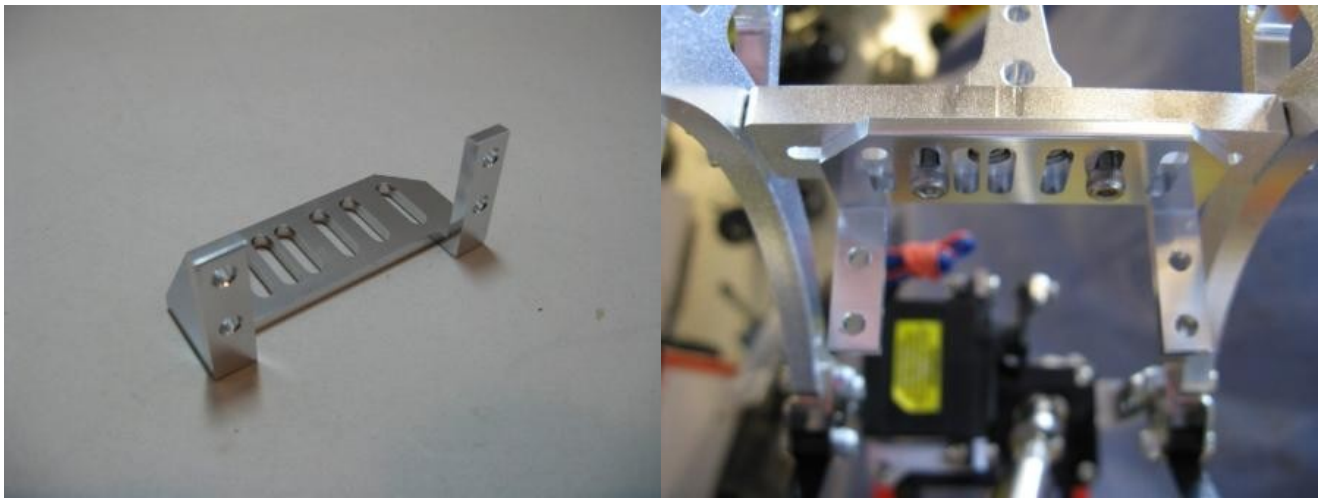


Step 12. Drive Shaft Install

You will now be able to install the Punisher shafts that were included with your kit. These already have the set screws installed into them. You may want to use a small amount of thread locker on the set screws when installing the shafts.
The female shaft needs to be installed to the axle. While the male side attaches to the transmission.

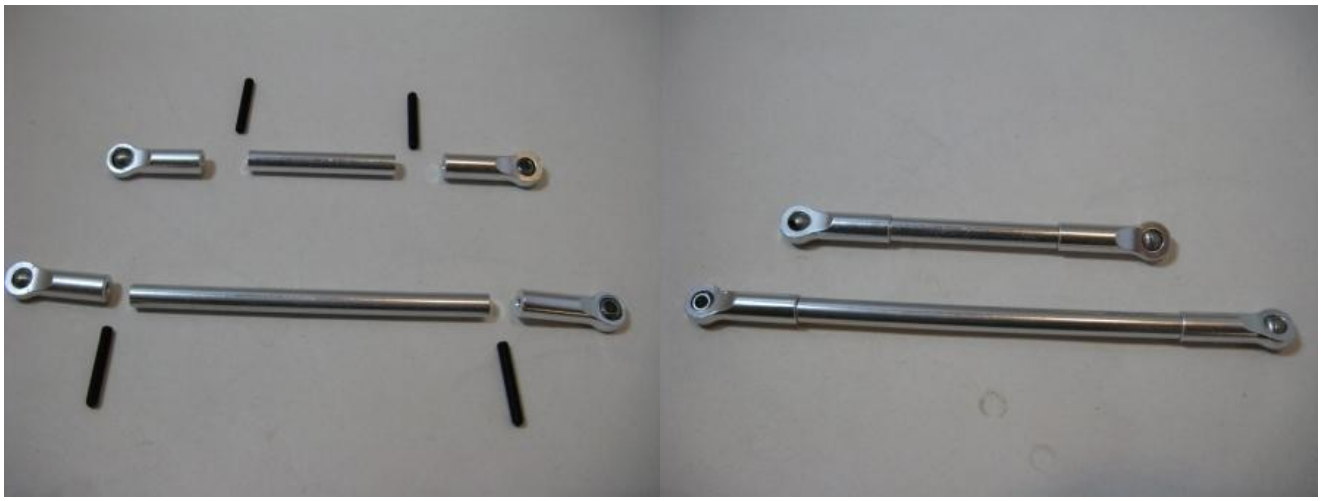
Step 13. Steering Servo Mount

Now onto the installation of the front Steering servo mount. You will want to get the "L" shaped servo mount from the parts box. You will also need (2) M3 x 8mm SHCS. Below shows the servo mount, and then installed. This gets installed onto the bottom of the front cross brace. Use a little thread locker. Make sure the servo mounts are facing toward the back of the truck for BTA.



Step 14. Steering Links build

You will need to remove the remaining (4) rod ends. Also remove the two additional links, and the (4) long SSS. As you can see in the photo's this is a simple assembly. Be sure to use thread locker in this step.



Step 15. Steering Servo Mounting

You can now install you front steering servo on the Trail finder kit. You can use (4) M3 x 12mm or 10mm SHCS, (4) nuts and (4) washers. Simply install the servo like normal and then use the screws to hold the servo in place. You can have the servo face one way or another. There are no photos for this step.

Step 16. Steering Link Install

This is the last step. This step will require you to make some adjustments of the steering servo mount to make sure there is proper alignment of the links when installed. Please be patient and make sure everything is working properly. You may need to remove the servo to insure proper alignment.

You will need (1) M3 x25mm SHCS, (1) M3 x 18mm SHCS, (3) conical washers, and (2) 6mm spacers.

On the side in which both links come together you will need to insert the M3 x 25mm SHCS thru the short rod end. Then install a conical washer and slide thru the other rod end on the long link. Put another conical washer on and the 6mm spacer. Insert into the knuckle on the front axle. * Be sure to check which side you install first. Make sure that the short link lines up with you steering servo arm.

On the other side insert the M3 x 18mm SHCS into the rod end. Then install a conical washer and 6mm spacer. Now you can install onto the other knuckle. *

Step 17. Wheel and Tire Installation

Since there again are so many options I will briefly touch on tire mounting to the wheels. There are two types. One is standard glued, and the other is bead lock.

Make sure when mounting the tires on any wheel that you look at the tread pattern and make sure that when the wheels are installed that each are facing the right direction.

If you have a standard glued on combo, just put the tire on the wheel. Then use your favorite tire glue to make sure everything stays in its place.

Now if you have the bead lock style then you have a little more work. Remove all the screws on the front and back ring. Wrap the tire over the wheel and then insert the bead into the outer ring of the

wheel. Carefully place the ring back on and reinstall the screws. I use a cross pattern and carefully tighten the screws slowly. Make sure not to tighten anyone screw all the way down. This will cause the bead to come out of its seat.

After you have your tires mounted, you can remove the nuts on the axles and install the wheels to your Trail Finder. It should look something like this.

You will need to install your body and the rest of your electronics. Please understand that the steering and shift servo will require some adjustment to work properly. When you install your Radio and ESC you will need to refer to there operating manuals for proper setup.

Enjoy your new kit and please post up photos of your finished build on our forum here. Please also use the forum if you have questions about your build.

Thanks
Team RC4WD

Below are some additional photos of this Trial Finder build.