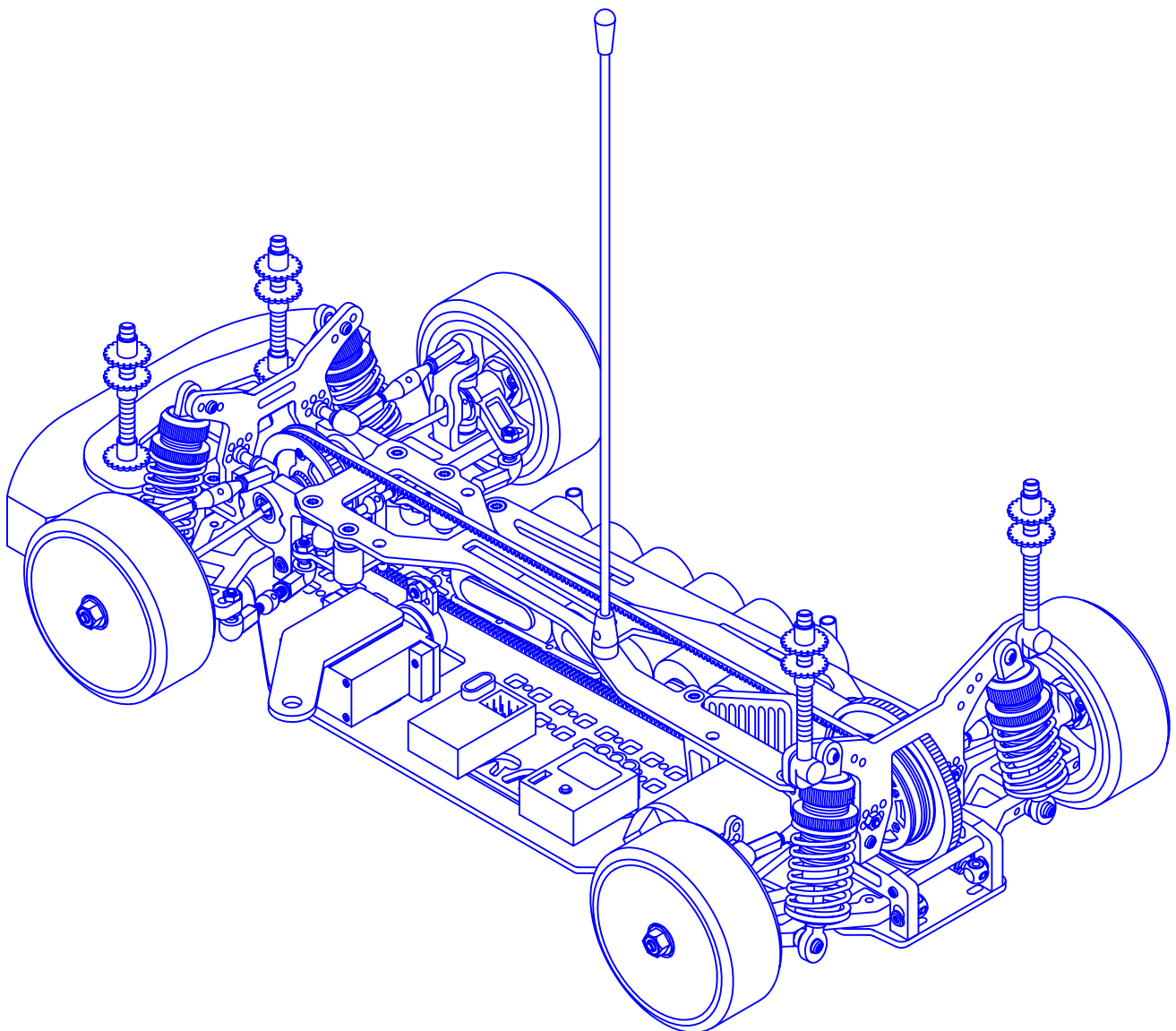


# TEAM CORALLY **ASSASSIN**

## **Touring Car Instruction Manual**



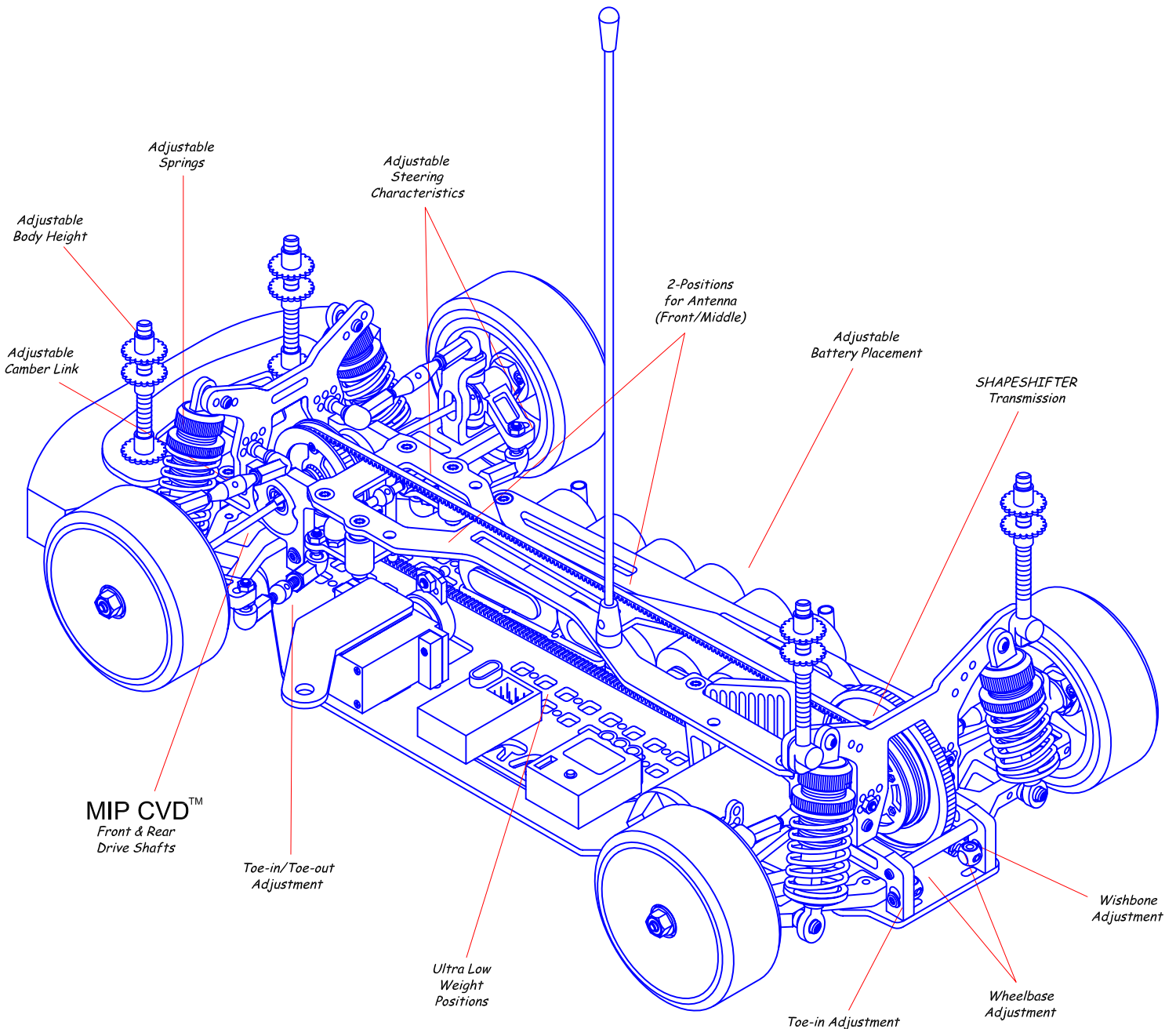


## Congratulations !

You have just bought the best 1:10 Touring Car available!  
With its unique stock/modified SHAPESHIFTER concept you can choose between either direct or reduction drive. And this

### **Assassin Instruction Manual**

will guide you through all the steps to get your car running.  
For best results it is advised to read this manual completely before you start to build the car.



## Tools needed (included)

---

- Screwdriver Torx T10 **Corally part #16030**
- Silicone Shock Oil 20WT oil **Corally part #80120**
- Differential Grease **Corally part #80010**
- Thread Lock (included with MIP CVD™) **Corally part #79180**

## Tools needed (not included)

---

- Screwdriver for setscrews - 1.5mm **Corally part #16040**
- Small Philips screwdriver
  
- Cross Wrench (small)  
or
- 5 mm nut driver
- 5.5 mm nut driver
- 6 mm nut driver
- 7 mm nut driver
  
- Cutting Plier
- Longnose Plier
  
- Precision ruler
- Vernier calipers
  
- Hobby Knife  
**Be carefull with the sharp blade!**
- Hobby Scissors
  
- Double-sided Tape

## Items needed to complete your car (not included)

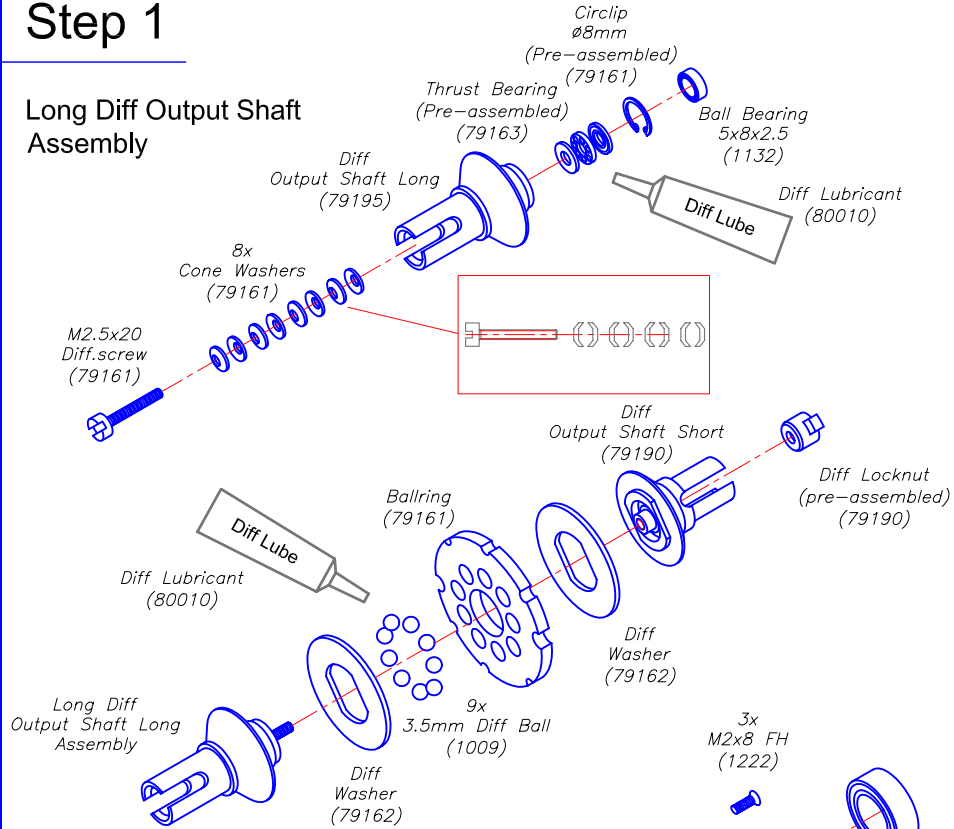
---

- R/C two channel surface frequency radio system
- 7.2V Battery Pack (6 cell sub-C size)
- Battery Charger (with peak or temperature detection)
- Electronic Speed Control
- Electric Motor
- Pinion gear, size to be determined by type and wind of motor you will be using. Use short pinion for direct drive (1-belt) and long pinions for reduction (2-belt) drive.
- 1:10 Scale Lexan Body

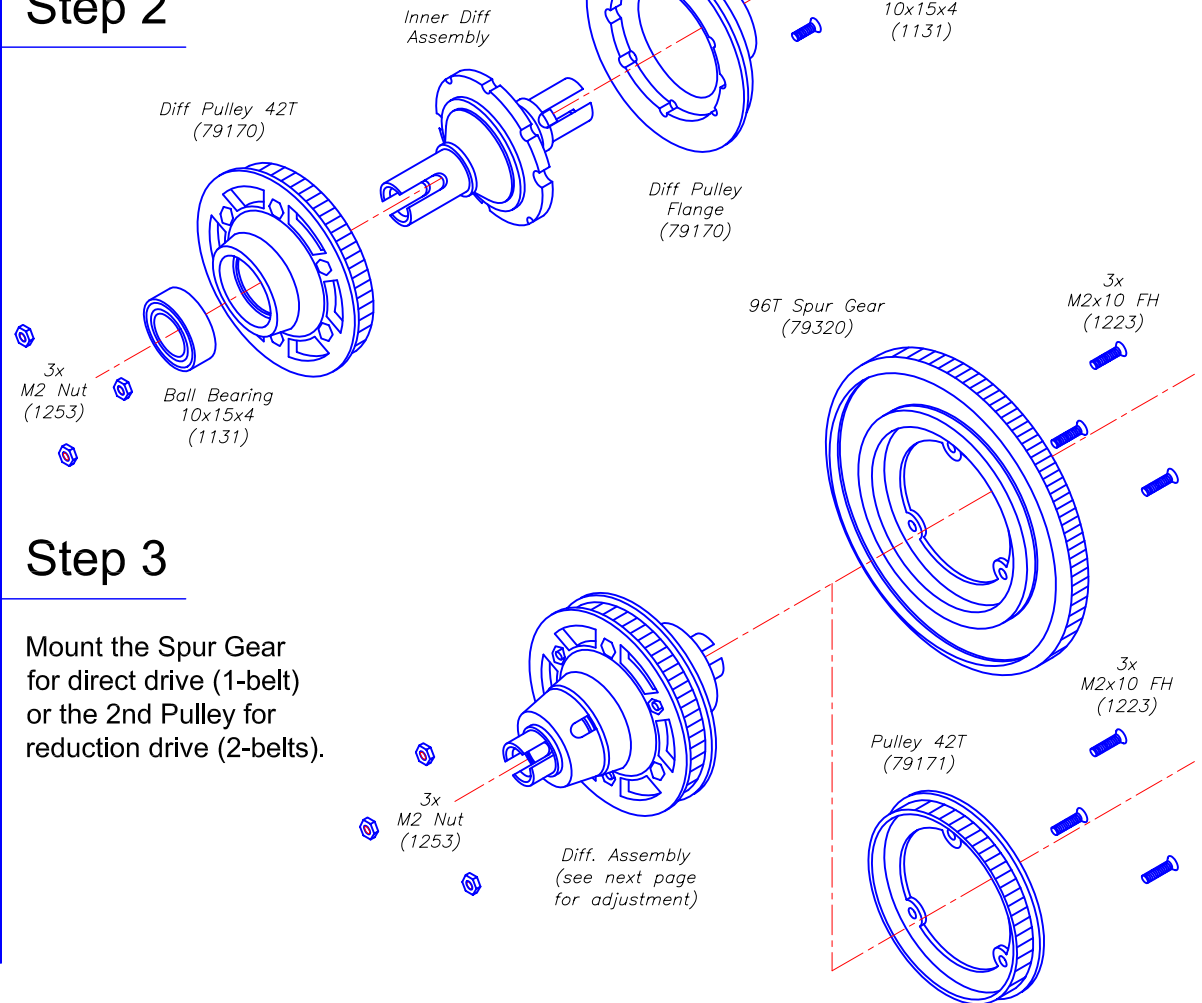
# Bag 1 Rear Differential

## Step 1

### Long Diff Output Shaft Assembly



## Step 2



## Step 3

Mount the Spur Gear for direct drive (1-belt) or the 2nd Pulley for reduction drive (2-belts).

- 1x 96T Spur Gear
- 1x Diff Locknut

2nd Pulley (see page 9)

9x Ball Ø3.5 mm

1x Diff Output Shaft Long

1x Diff Output Shaft Short

1x M2.5x20 Diff screw

8x Cone Washer 6x2.7

1x Circlip Ø8mm

1x Thrust Bearing (3-pc.)

1x Ball Bearing 5x8x2.5

2x Ball Bearing 10x15x4

2x Diff Washer

3x M2 x 10 FH

3x M2 x 8 FH

6x M2 Nut

1x Ball Ring

1x Diff Pulley 42T

1x Diff Pulley Flange

1x 2nd Pulley

1x 96T Spur Gear

1x Diff Locknut

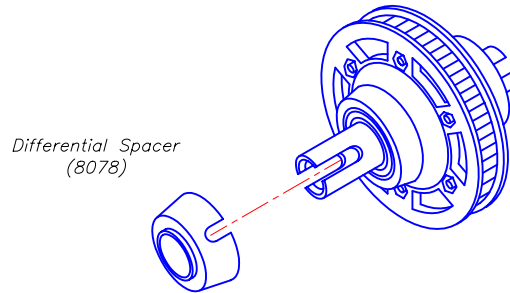


# Differential Adjustment

The Differential is one of the most important things of your car. So build it very carefully.

## Step 1

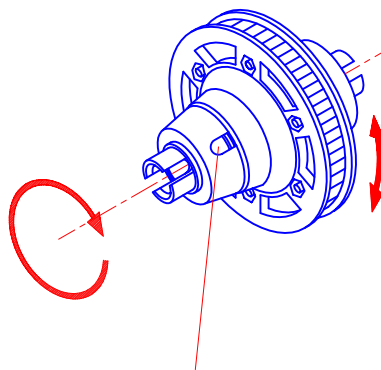
First the Differential Spacer must be slid over the Long Differential Output.



## Step 2

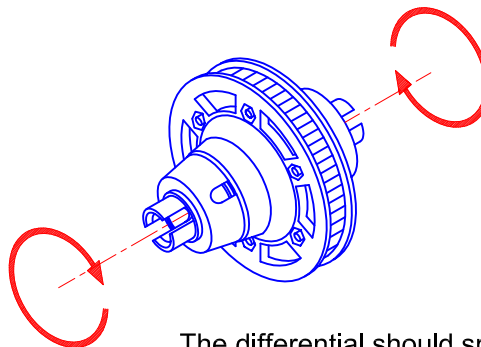
As the Differential is built now, it can also be used as a normal Front Differential (optional)

Hold the outdrive on this side with another screwdriver.



Stick a 1.5mm screwdriver in it that it slots in the head of the diff screw. As you tighten the diff, you will notice the cone washers are being compressed. The cone washers should be tightened until the pulley can not be rotated when both of the diff hubs are being held.

## Step 3



The differential should spin smoothly after assembly.

- 1x One-way Hub
- 1x One-way Outdrive Left
- 1x One-way Outdrive Right



- 1x Front One-way Axle



- 1x Pin 7.9x1.5

- 1x 42T Pulley



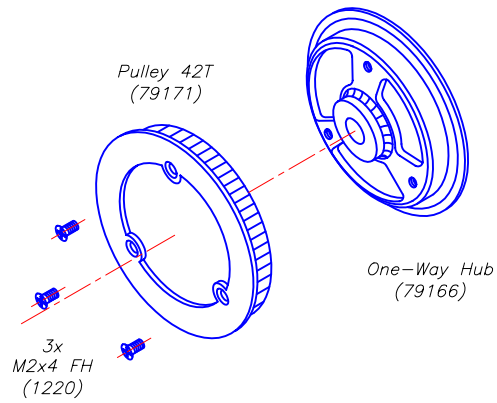
- 3x M2x4 FH

- 1x O-ring Ø5x1.5

## Bag 2 Front One-way

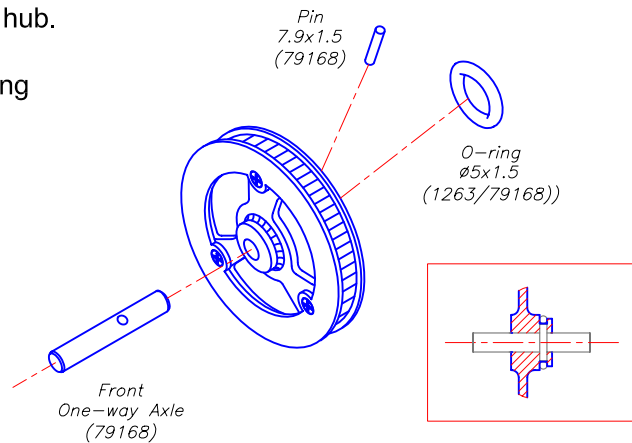
### Step 1

Mount the plastic pulley on the one-way hub.



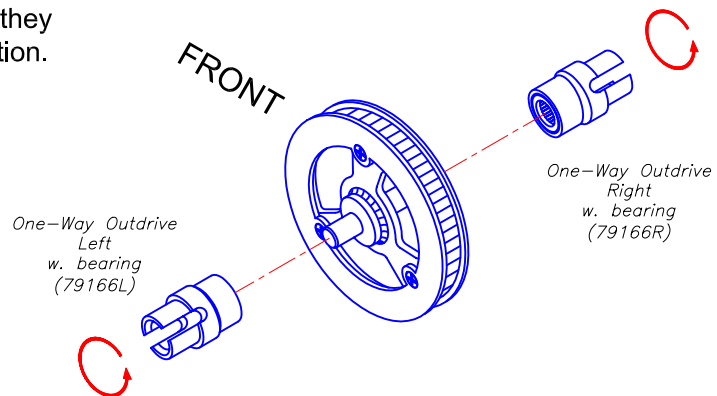
### Step 2

Slide the axle to the one-way hub. Then put the pin in the hub. Now lock the pin with the O-ring

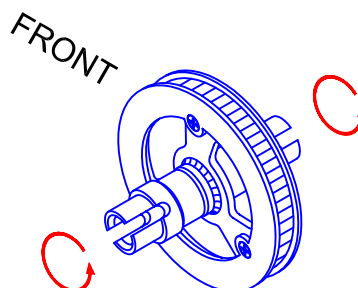


### Step 3

Slide the outdrives over the axle. Make sure that they turn in the right direction.



The outdrives have to turn freely by rolling them forwards.



2x Bulkhead Front

2x Bulkhead Rear

8x Hingepin Adjustm. Block

8x Delrin Hingepin Lock

4x Toe-in Spacer 1°

4x Inner Hingepin

8x Plastic Clip

4x Wishbone

8x Cone Washer 8x4.2x0.5

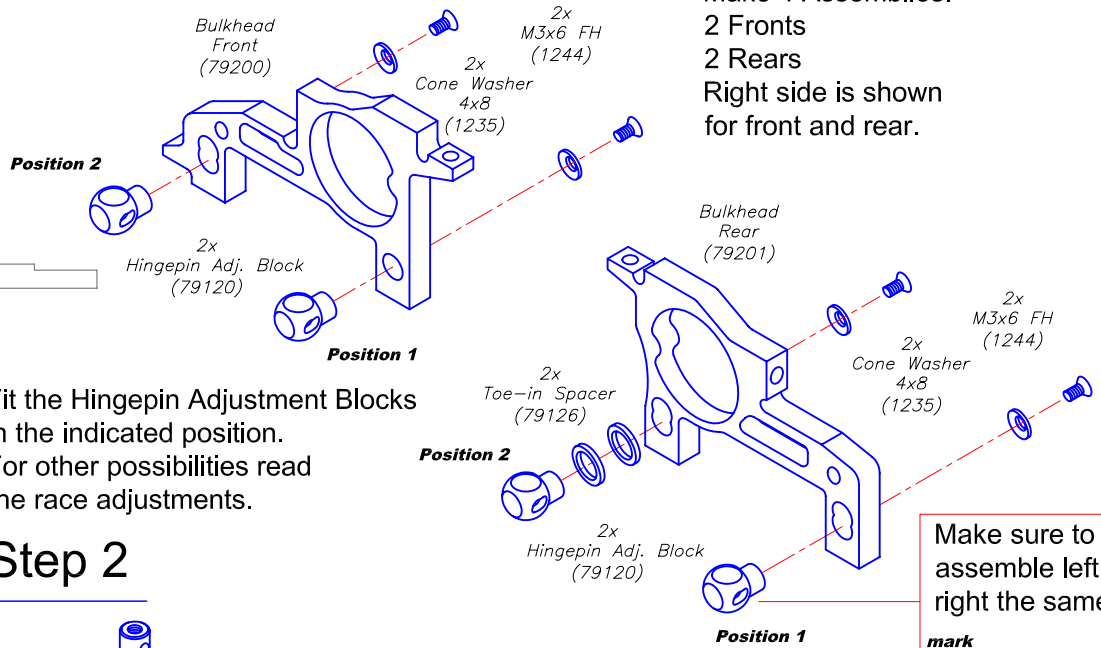
4x Alu Shim 3.2x7

8x M3x6 FH

4x M3x3 Setscrew

# Bag 3 Drivetrain Subassembly

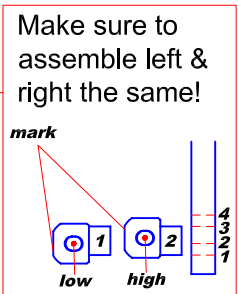
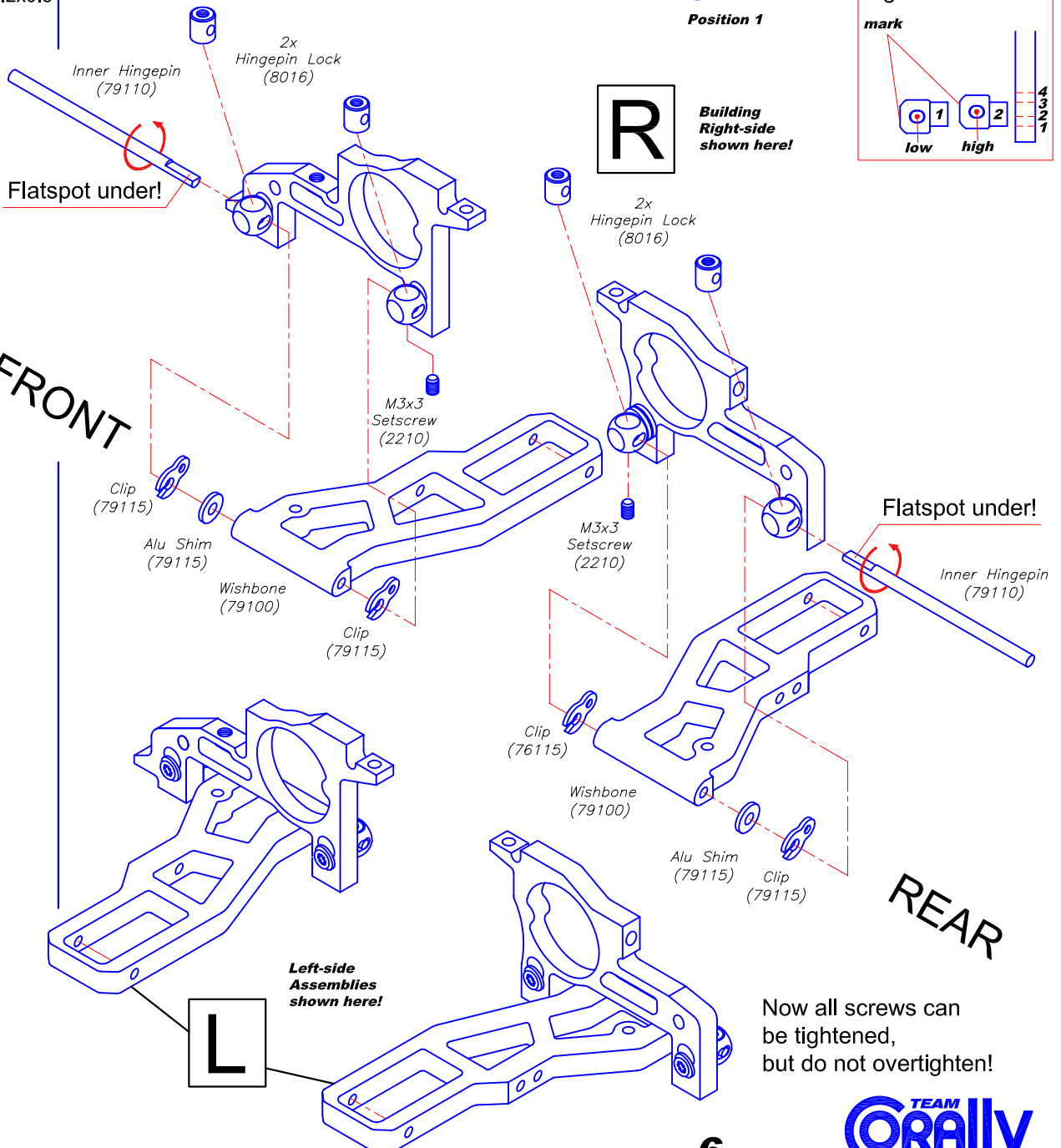
## Step 1



**Make 4 Assemblies!**  
 2 Fronts  
 2 Rears  
 Right side is shown for front and rear.

Fit the Hingepin Adjustment Blocks in the indicated position. For other possibilities read the race adjustments.

## Step 2



Now all screws can be tightened, but do not overtighten!

- 1x Main Chassis
- 1x Long Belt
- 1x Bulkhead Center Post

# Bag 4 Drivetrain (Front)

## Step 1

Install the One-way parts and the bulkheads.

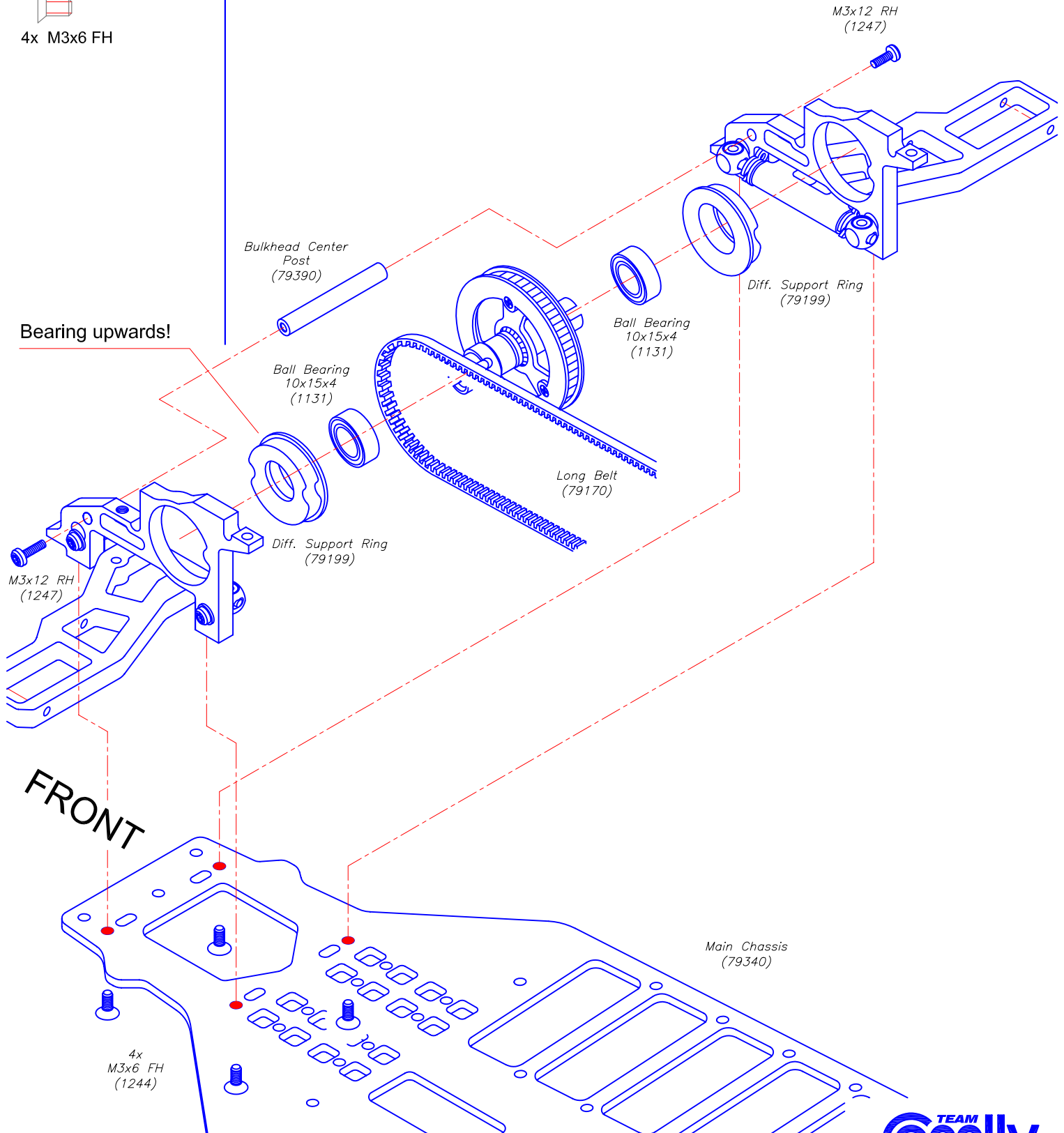
Then mount the assembly to the chassis.

- 2x Ball Bearing 10x15x4

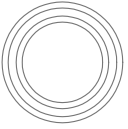
- 2x Diff Support Ring

- 2x M3x12 RH

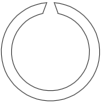
- 4x M3x6 FH



- 1x Motormount
- 1x Bulkhead Center Post

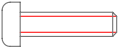


- 2x Ball Bearing 10x15x4



- 1x Diff Spacer (Right)

- 2x Diff Support Ring



- 2x M3x12 RH



- 6x M3x6 FH

# Bag 4 Drivetrain (Rear)

## option 1 STOCK

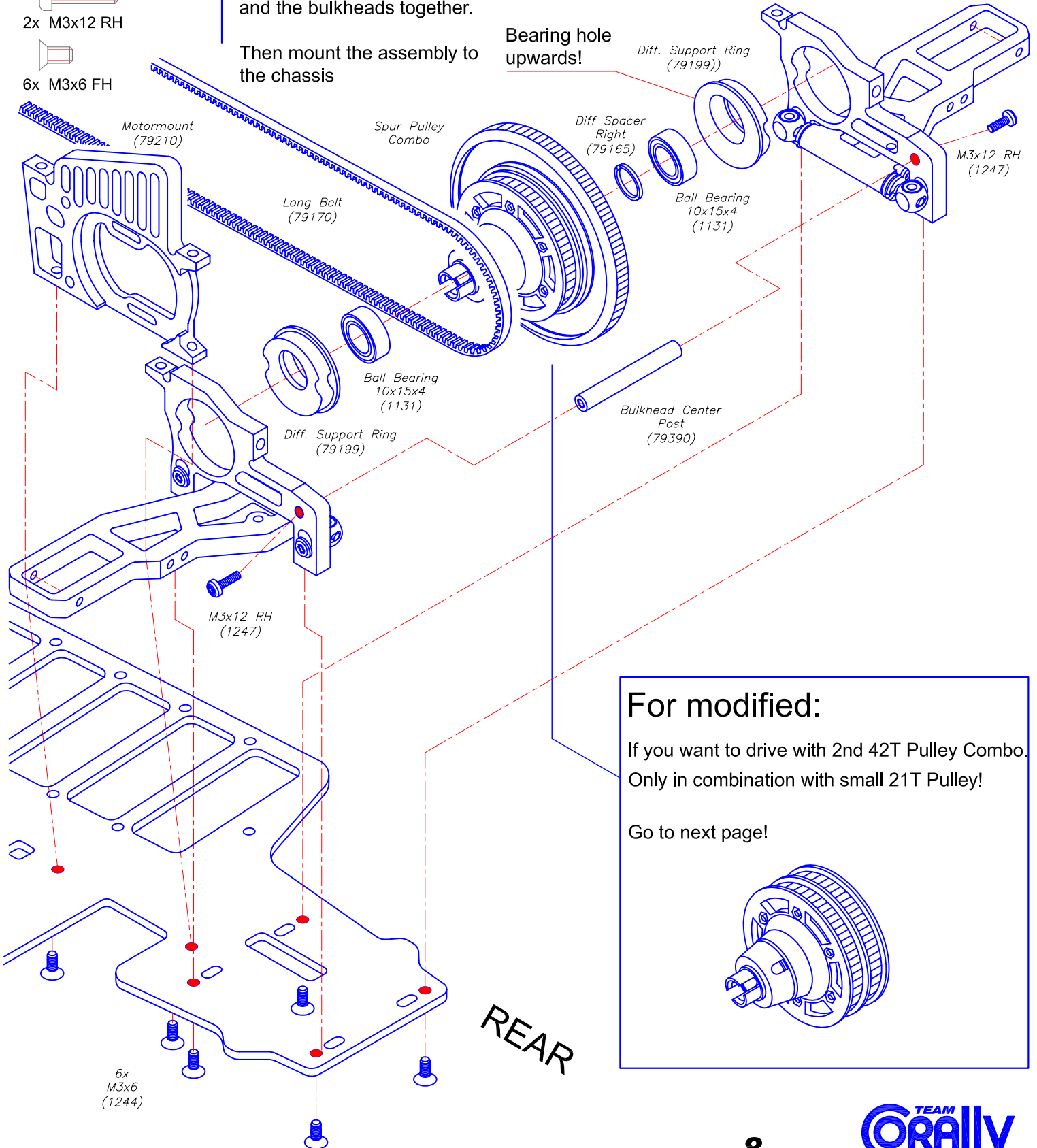
For building the 2-belt drive go to the next page.

### Step 3

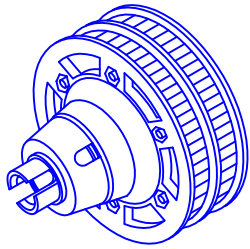
Build the rear differential parts and the bulkheads together.

Then mount the assembly to the chassis

Bearing hole upwards!



**For modified:**  
 If you want to drive with 2nd 42T Pulley Combo.  
 Only in combination with small 21T Pulley!  
 Go to next page!





- 1x Motormount
- 1x Short Belt
- 2x Bulkhead Center Post
- 1x Spur Gear Shaft
- 1x Spur Gear Shaft Spacer
- 2x Ball Bearing 10x15x4
- 2x Ball Bearing 5x9x3

# Bag 4 Drivetrain (Rear)

## option 2 MODIFIED

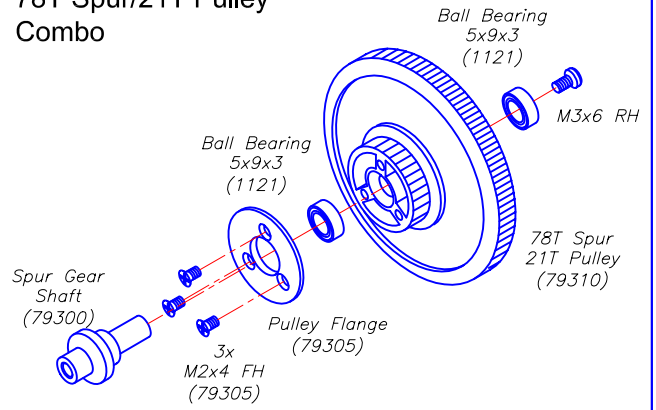
### Step 3

The same steps can be followed for modified.

Mount the rear differential parts and the bulkheads together.

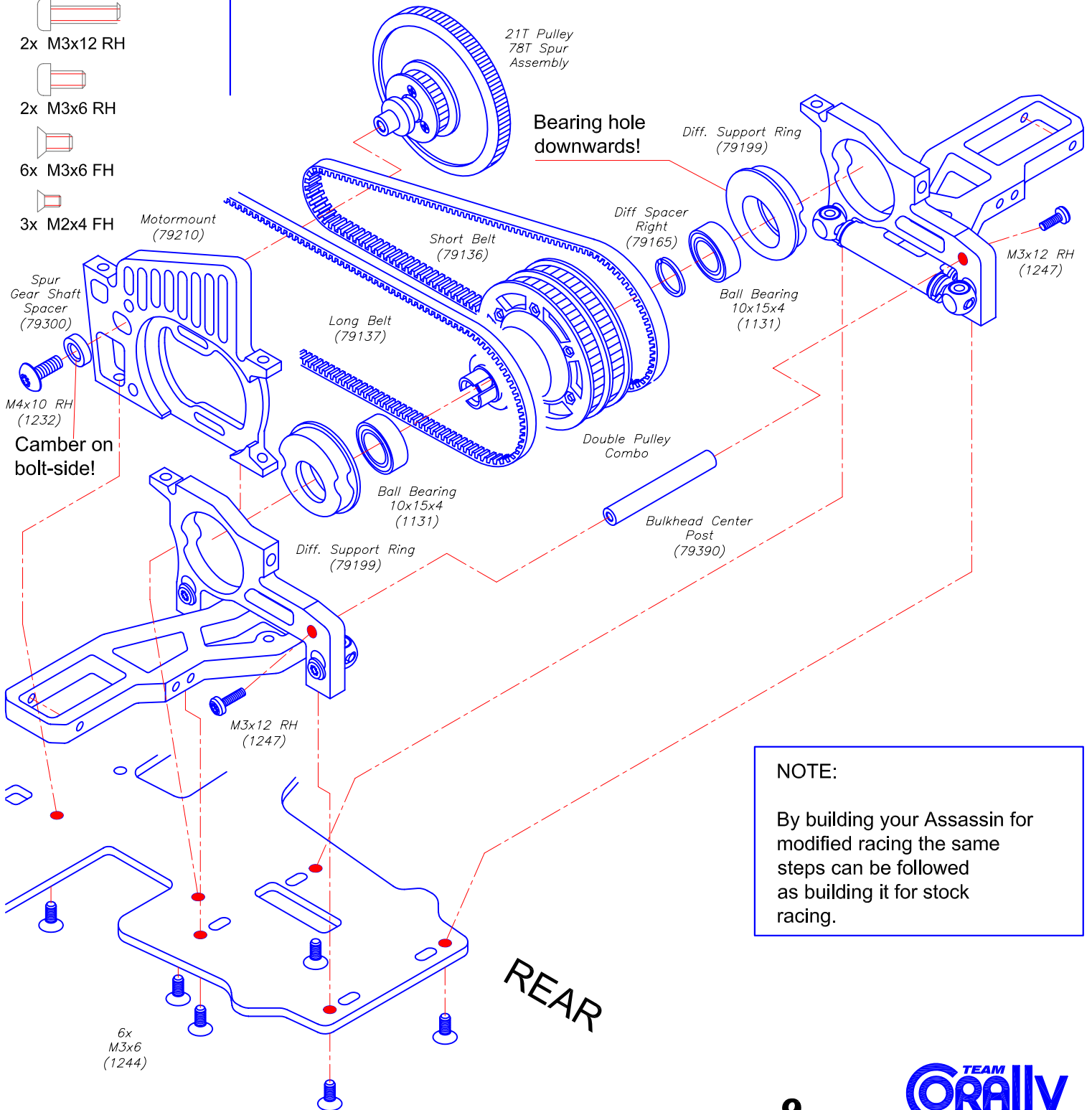
Then mount the assembly to the chassis.

### 78T Spur/21T Pulley Combo



- 1x Diff Spacer (Right)
- 2x Diff Support Ring
- 1x Pulley Flange

- 1x M4x10 RH
- 2x M3x12 RH
- 2x M3x6 RH
- 6x M3x6 FH
- 3x M2x4 FH



#### NOTE:

By building your Assassin for modified racing the same steps can be followed as building it for stock racing.

1x Topdeck

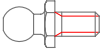


2x Steering Lever Post

1x Steering Lever Right

1x Steering Lever Left

1x Antenna Holder



5x Short Jointball 4.3mm (M3x5.5mm)



4x Ball Bearing 5x8x2.5



1x M3x8 RH



2x M3x6 RH



8x M3x6 FH

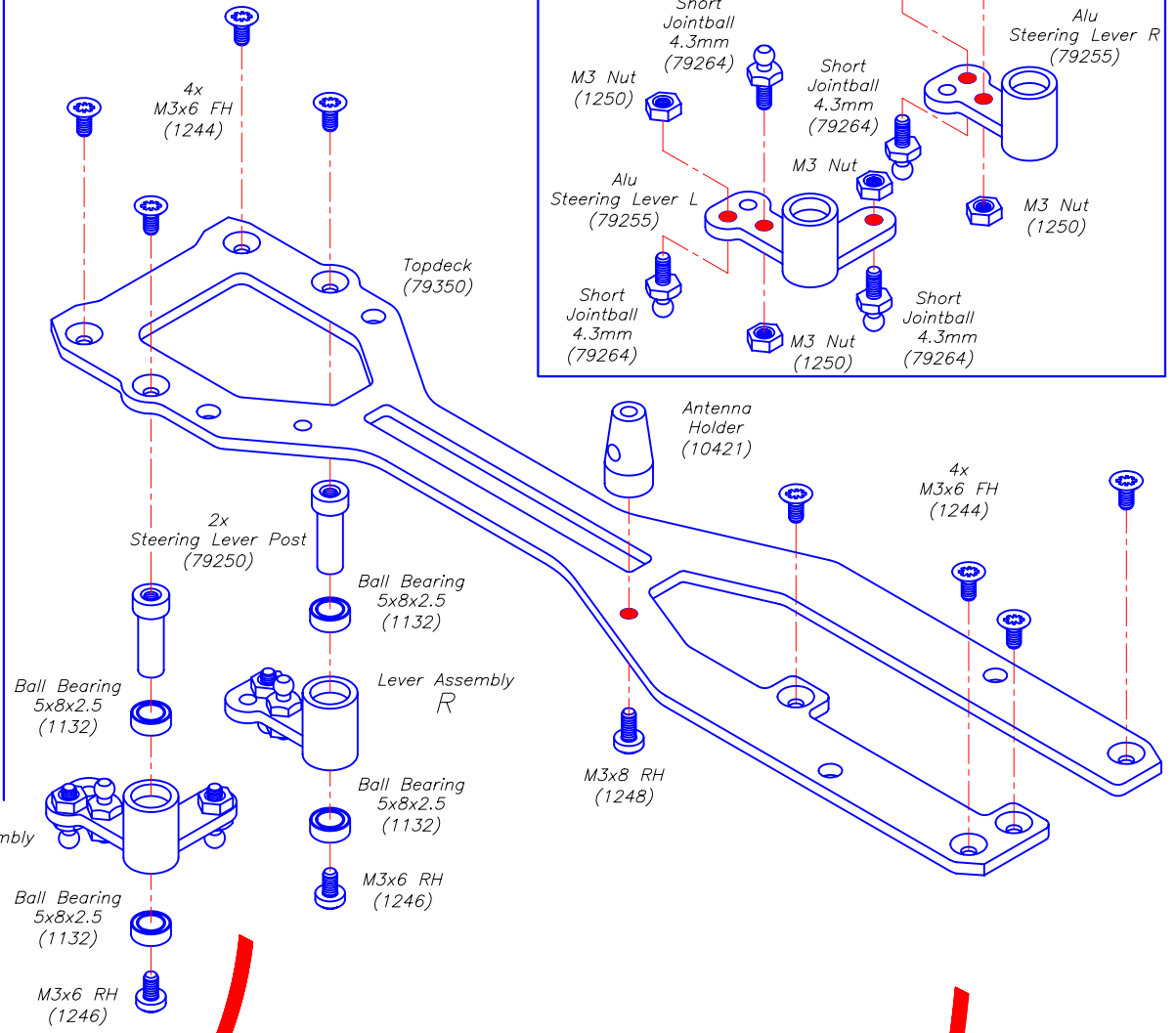
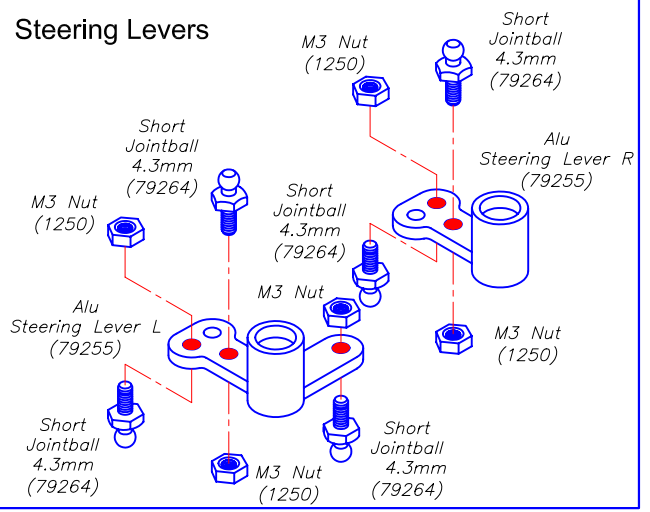


5x M3 Nut



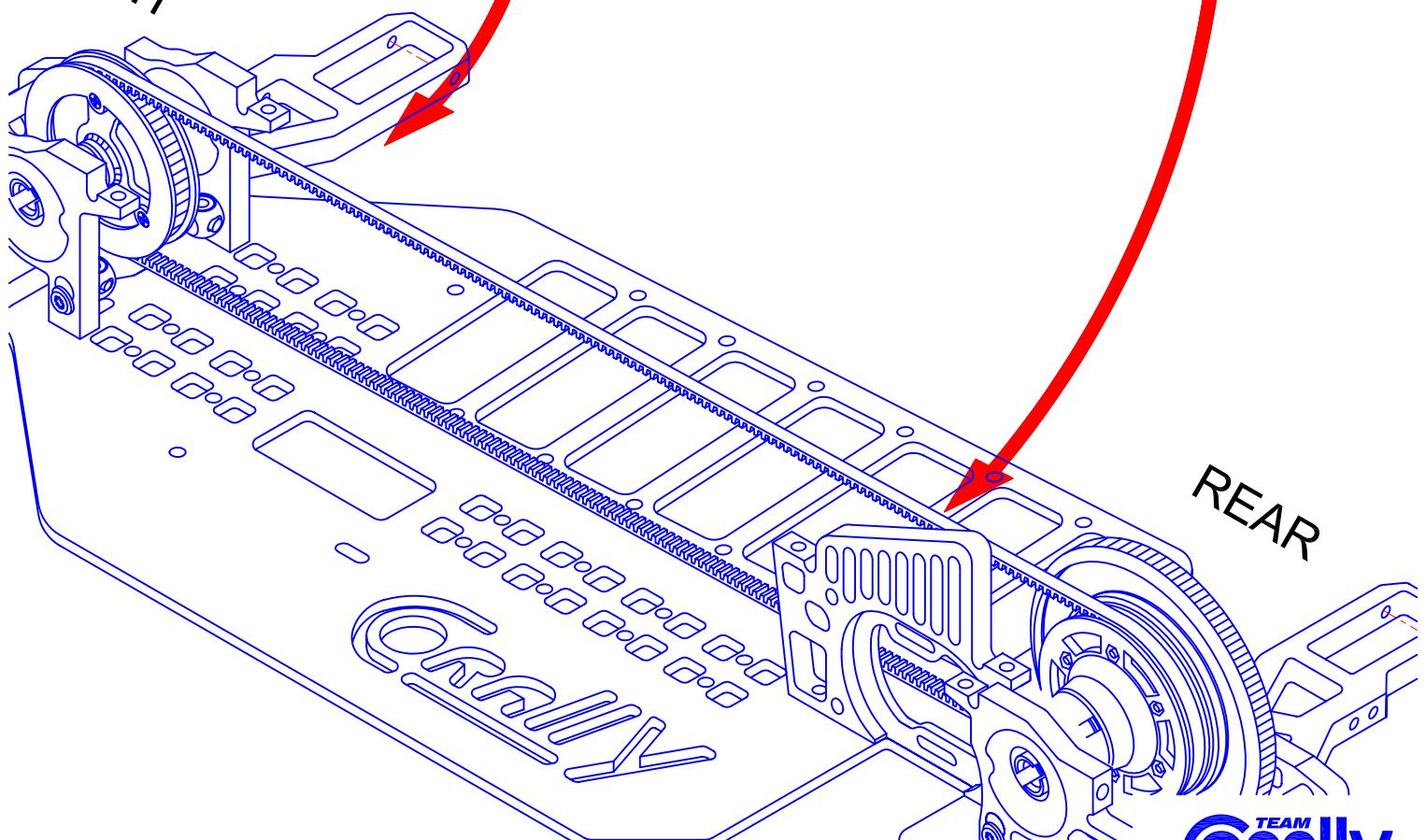
# Bag 5 Chassis

## Steering Levers



FRONT

REAR



1x Front Shocktower

1x Front Bumper



2x Long Jointball 4.3mm (Front Link)



2x M3x6 RH



3x M3x8 FH



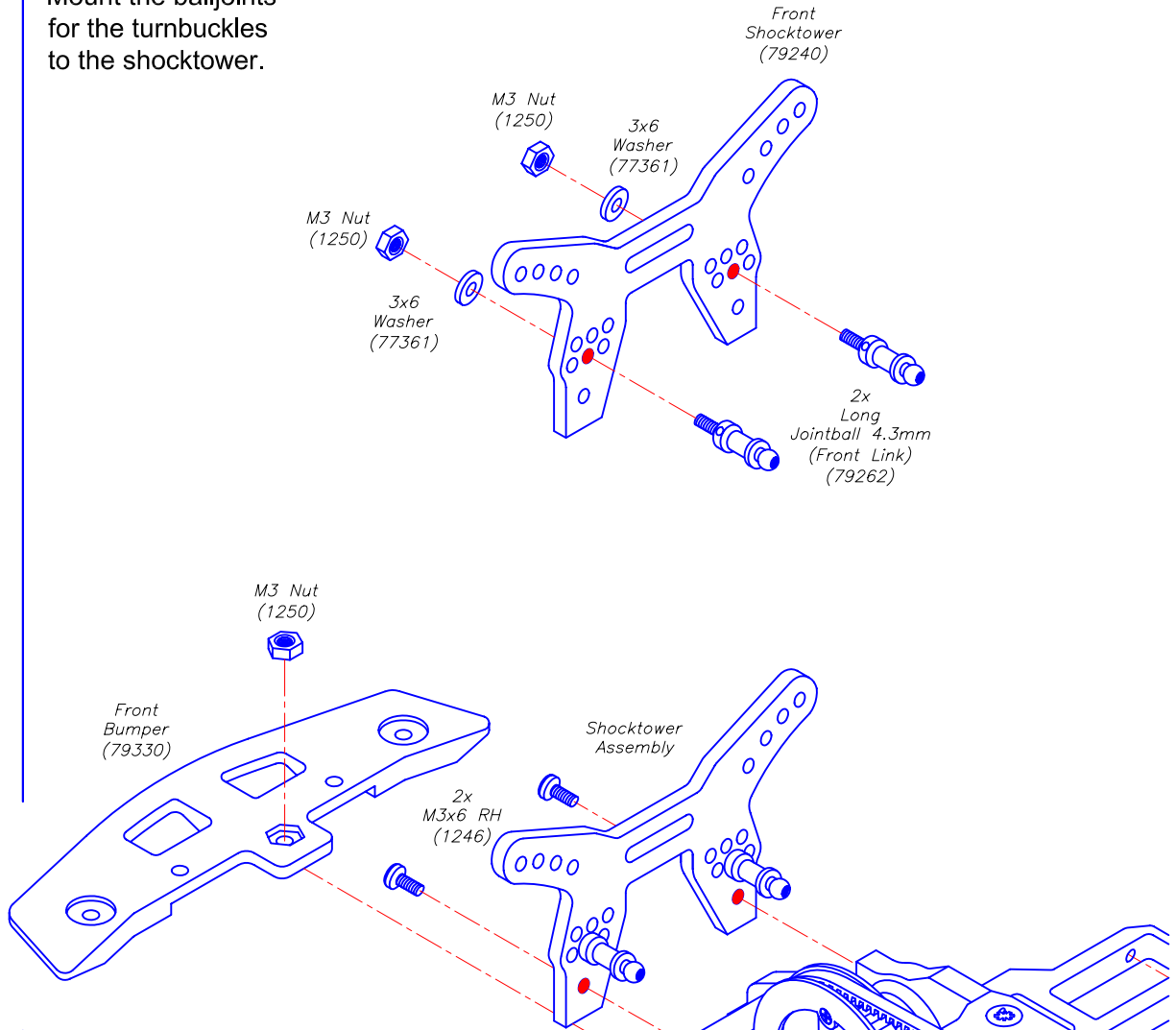
3x M3 Nut

3x M3 Washer

# Bag 5 Chassis (Front)

## Step 1

Mount the balljoints for the turnbuckles to the shocktower.

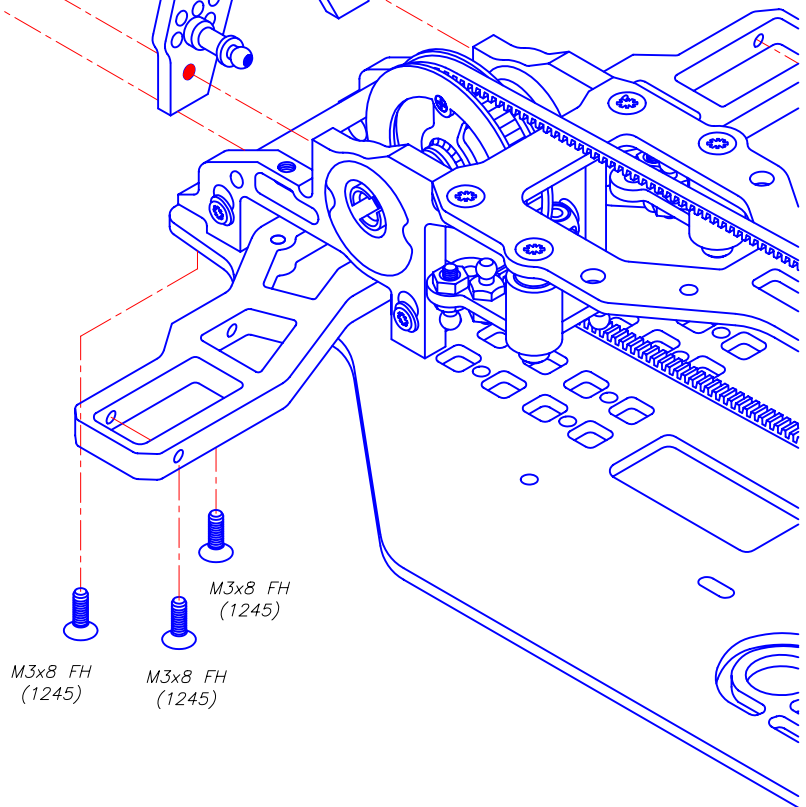


## Step 2

Then mount the shocktower assembly to the chassis.

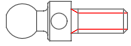
The front bumper can also be mounted. Slide it between the bulkheads and the chassis plate. To make it easier, the bulkheads screws can be loosened a couple of turns.

Then tighten the screws again.



1x Rear Shocktower

4x Battery Holder



2x Short Jointball 4.3mm (Rear Link)



2x M3x6 RH



8x M3x6 FH



2x M3 Nut

2x M3 Washer

# Bag 5 Chassis (Rear)

## Step 1

Mount the balljoints for the turnbuckles to the shocktower.

## Step 2

Then mount the assembly to the chassis.

The batteryholders can also be mounted. Mount them in the most forward position.

2x Short Jointball 4.3mm (Rear Link) (79263)

Rear Shocktower (79245)

3x6 Washer (77361)

M3 Nut (1250)

3x6 Washer (77361)

M3 Nut (1250)

4x Batteryholder (79370)

Shocktower Assembly

2x M3x6 RH (1246)

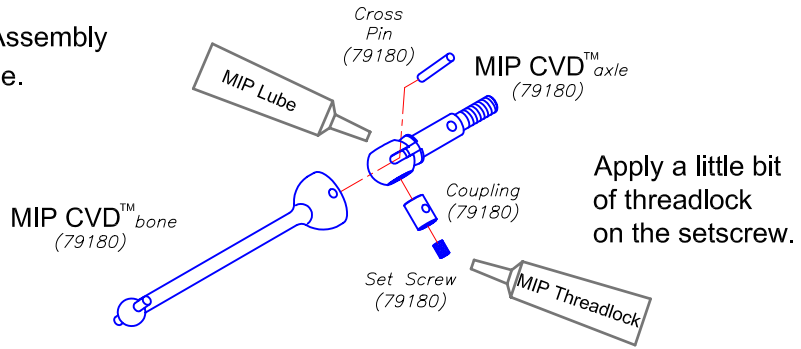
8x M3x6 FH (1244)

- 4x MIP CVD™ bone
- 4x MIP CVD™ axle
- 4x MIP CVD™ coupling
- 4x MIP CVD™ cross pin
- 4x MIP CVD™ setscrew

# Bag 6 Suspension 1 (Subassembly)

## Step 1

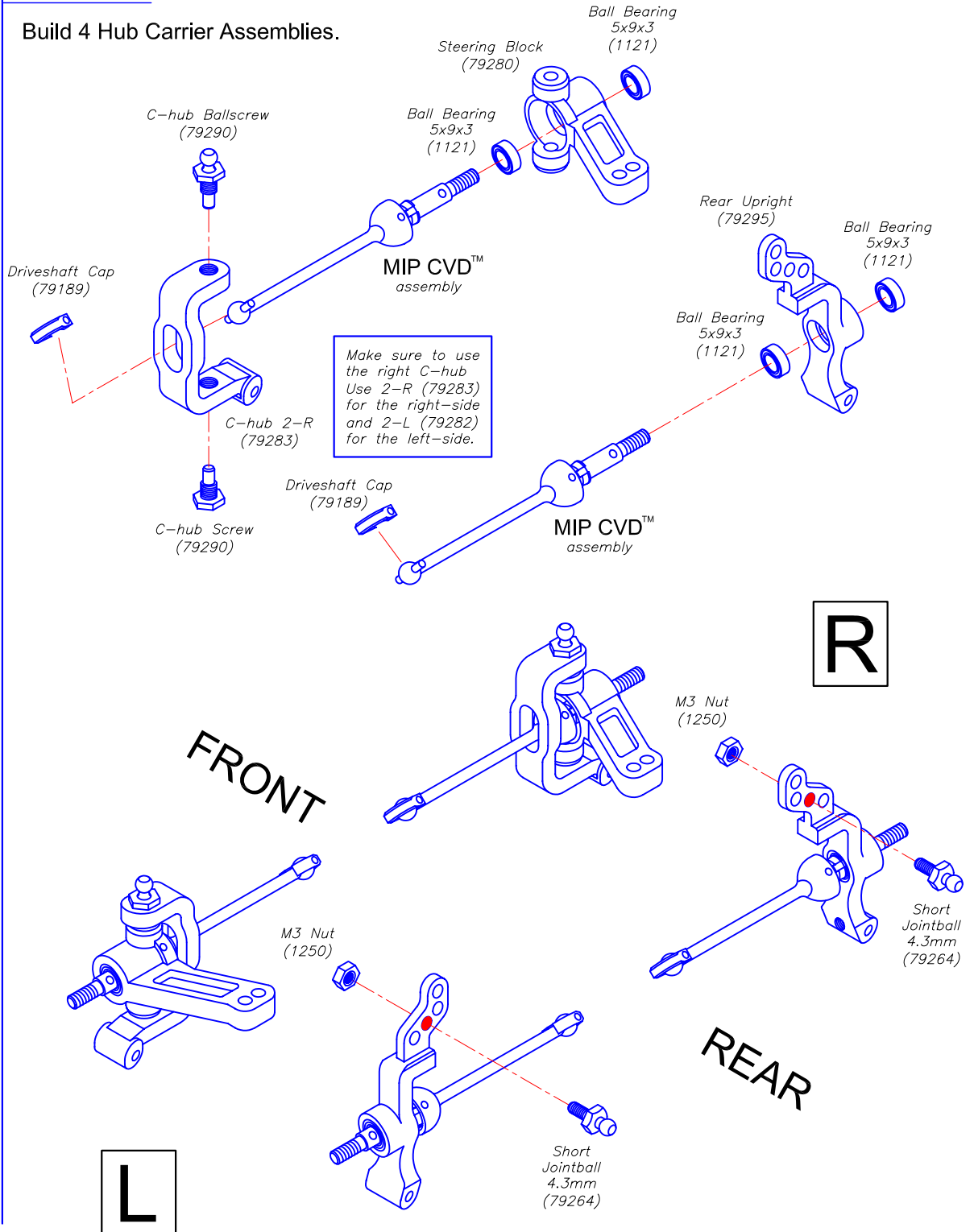
MIP CVD™ Assembly  
Build 4 of these.



## Step 2

Build 4 Hub Carrier Assemblies.

- 2x C-hub 0°
- 2x Rear Upright
- 2x Steering Block
- 4x Driveshaft Cap
- 2x Short Jointball 4.3mm (M3x5.5mm)
- 2x C-hub M5 Ballscrew
- 2x C-hub M5 Screw
- 8x Ball Bearing 5x9x3



FRONT

REAR

R

L



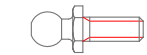
# Bag 6 Suspension 1(Front)

## Step 1

Mount the hub carrier assemblies to the wishbones. Fit the assembly with the washers between the wishbone and slide a hinge pin in the hole. Set the hinge pin with a setscrew. Now the E-clips can also be mounted.

## Step 2

The screws for the front shocks can also be positioned. But be aware that they are still loose.



2x Long Jointball 4.3mm (M3x7.5mm)



2x Outer Hingepin



2x M3x12 RH



2x M3x3 Setscrew



2x M3 Nut

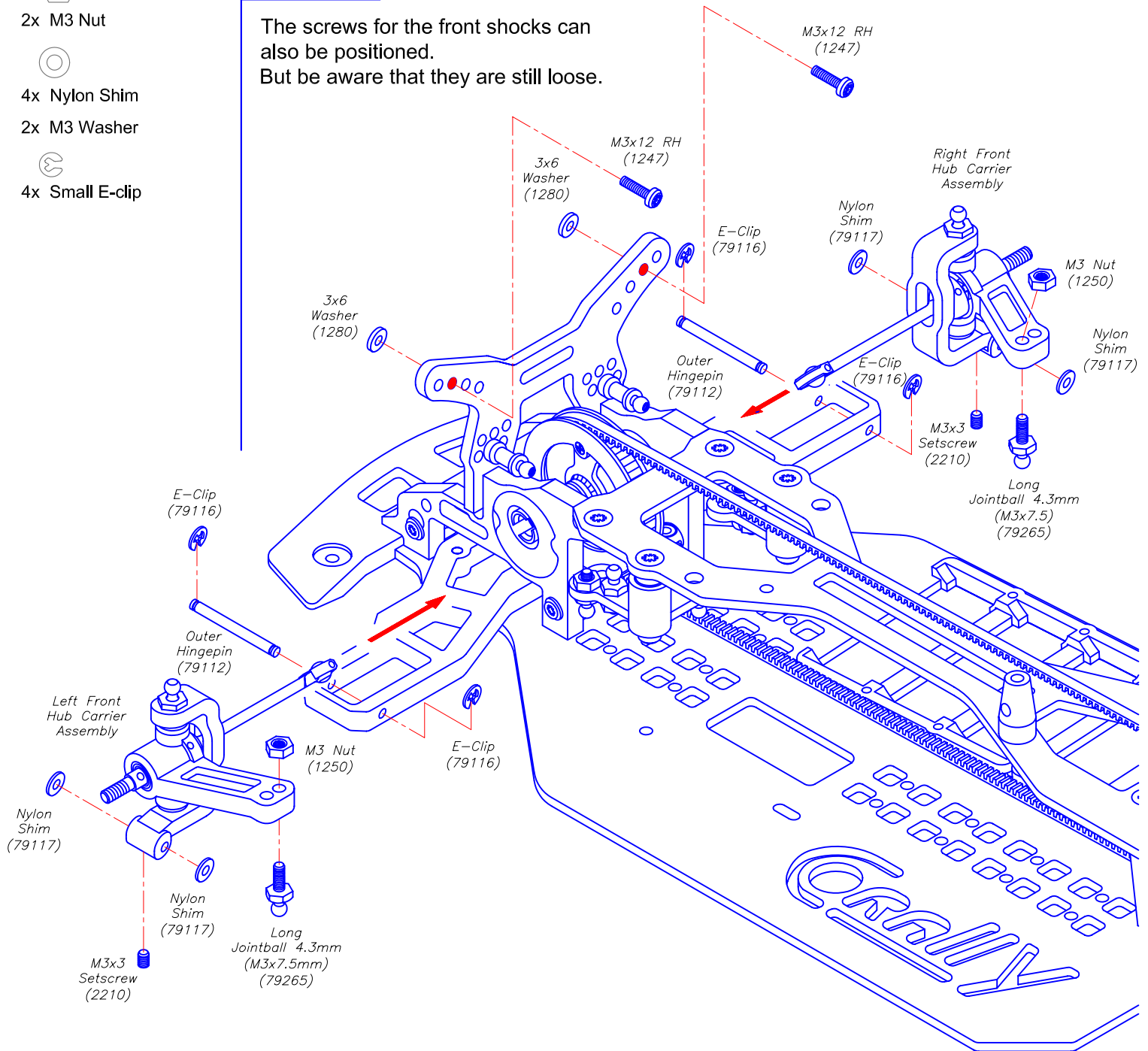


4x Nylon Shim

2x M3 Washer



4x Small E-clip



# Bag 6 Suspension 1(Rear)

## Step 1

Mount the rear upright assemblies to the wishbones. Fit the assembly with the washers between the wishbone and slide a hinge pin in the hole. Set the hinge pin with a setscrew. Now the E-clips can also be mounted.

## Step 2

The screws for the rear shocks can also be positioned. But be aware that they are still loose.

2x Outer Hingepin



2x M3x12 RH



2x M3x3 Setscrew



2x M3 Nut

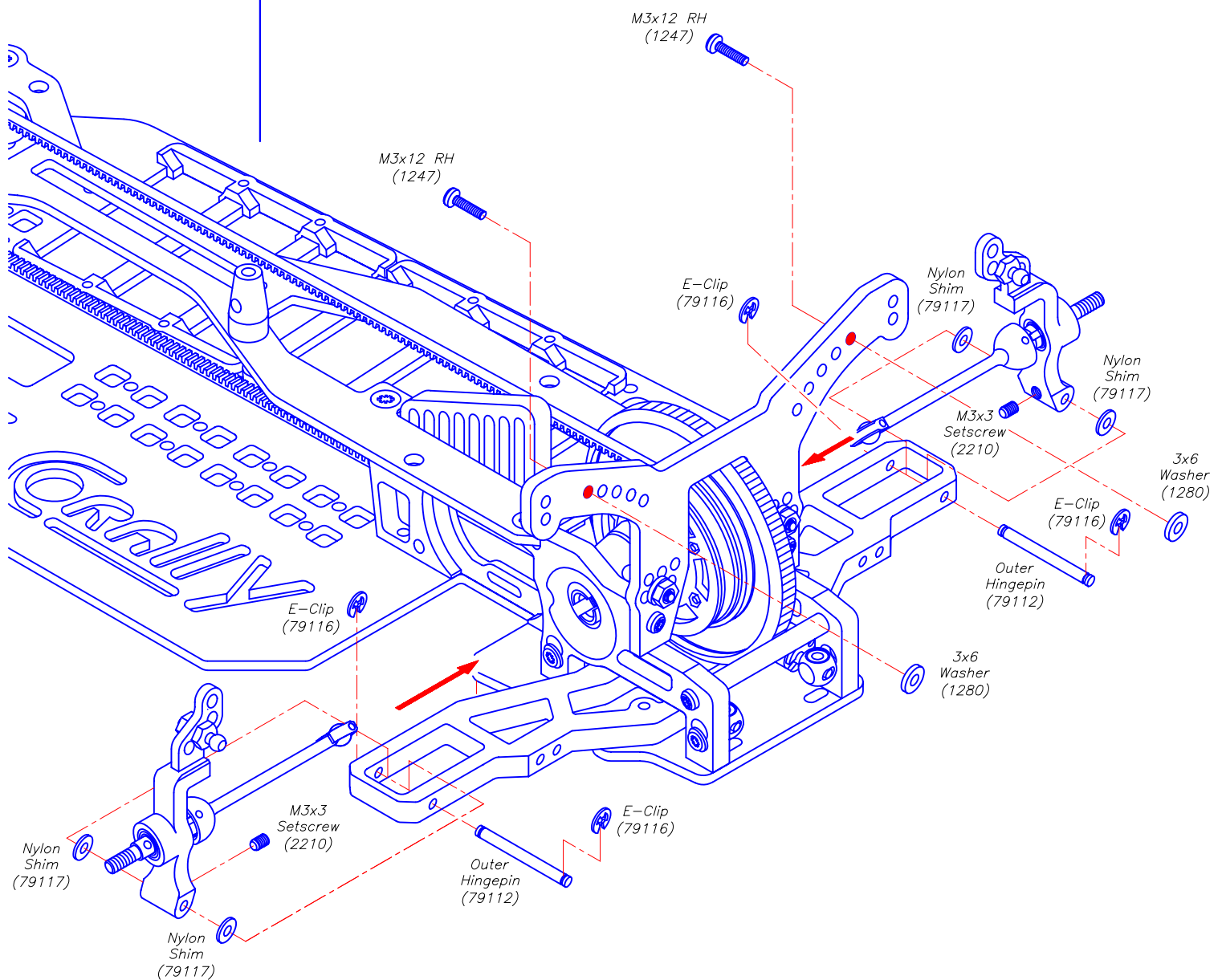


4x Nylon Shim

4x M3 Washer



4x Small E-clip



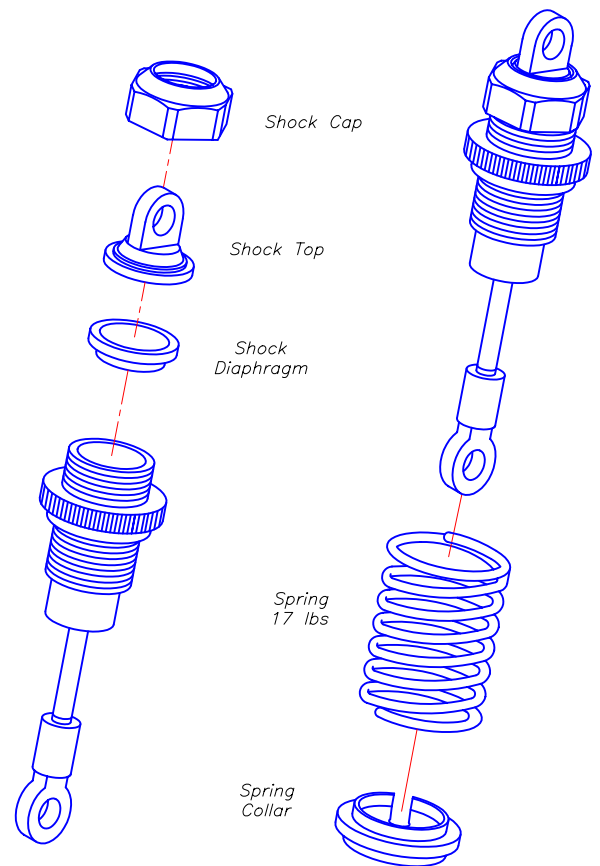
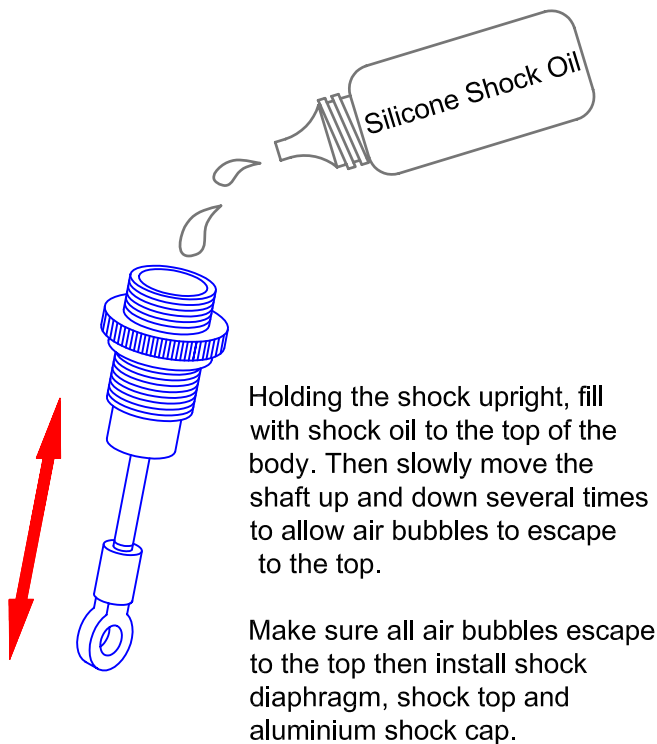
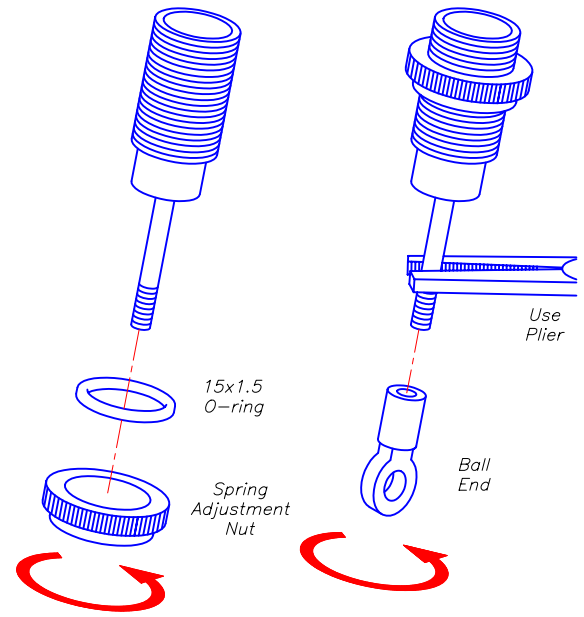
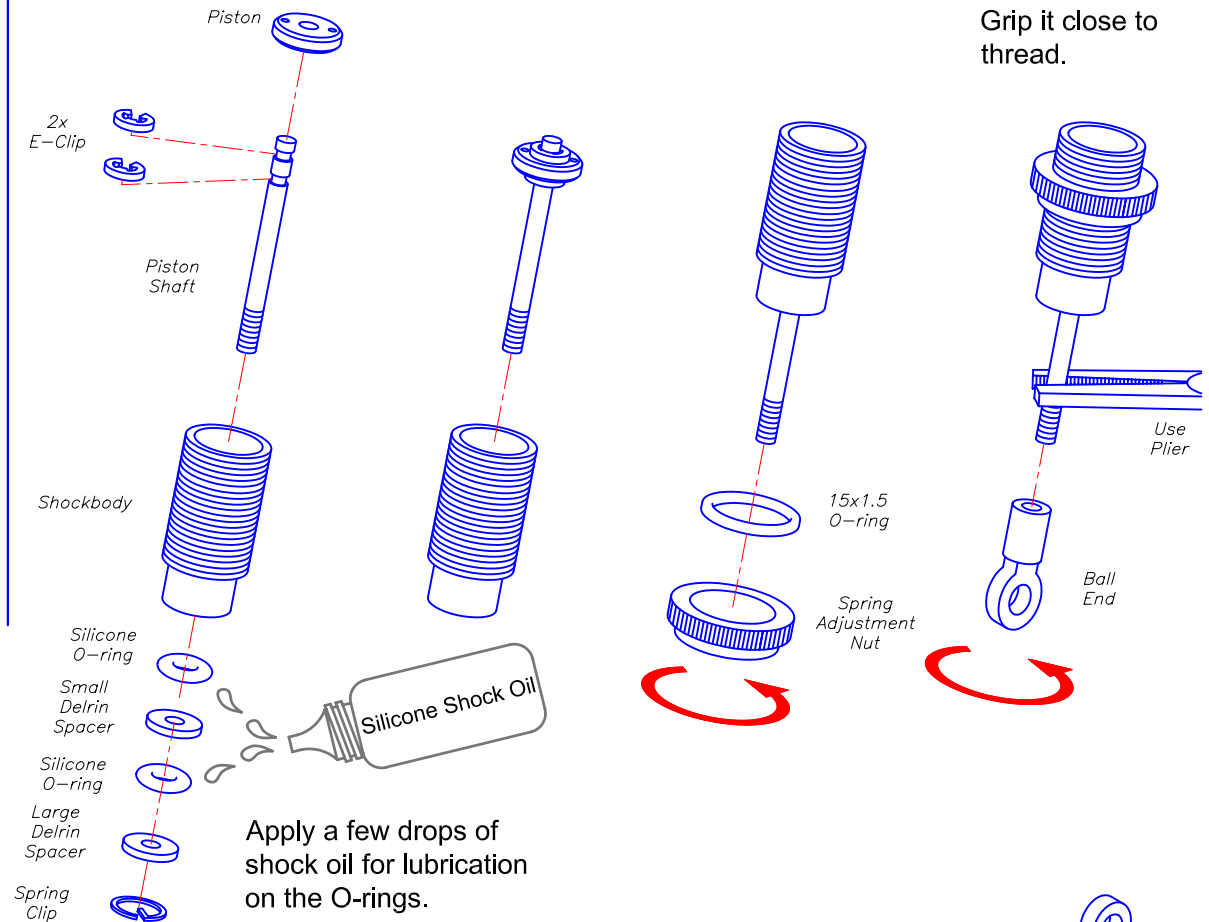
- 4x Shockbody
- 4x Spring Adjustment Nut
- 4x 15x1.5 O-ring
- 8x Silicone O-ring
- 4x Shock Cap
- 4x Shock Shaft
- 4x Shock Top
- 4x Piston
- 4x Sealcap
- 4x Spring Collar
- 4x Ball End
- 4x Shock Diaphragm
- 4x Spring Clip
- 8x E-clip
- 4x Spring 17.0 lbs
- 4x Small Delrin Spacer
- 4x Large Delrin Spacer

# Bag 7 Suspension 2 (Shocks) - PRE-ASSEMBLED

Build 4 identical Shock Absorbers (#79220). Build them very carefully.

Use plier to hold shaft, but do not damage the shaft.

Grip it close to thread.

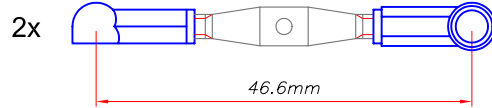


# Bag 7 Suspension 2 (Front)

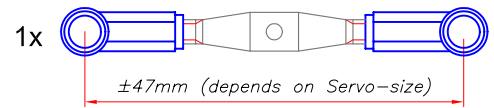
## Step 1

Assemble 6 Turnbuckles as shown. (Scale 1:1)

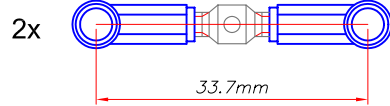
Front Camber Link (#79272)



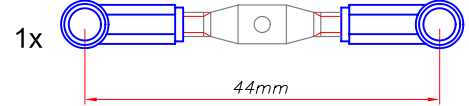
Servo Link (#79272)



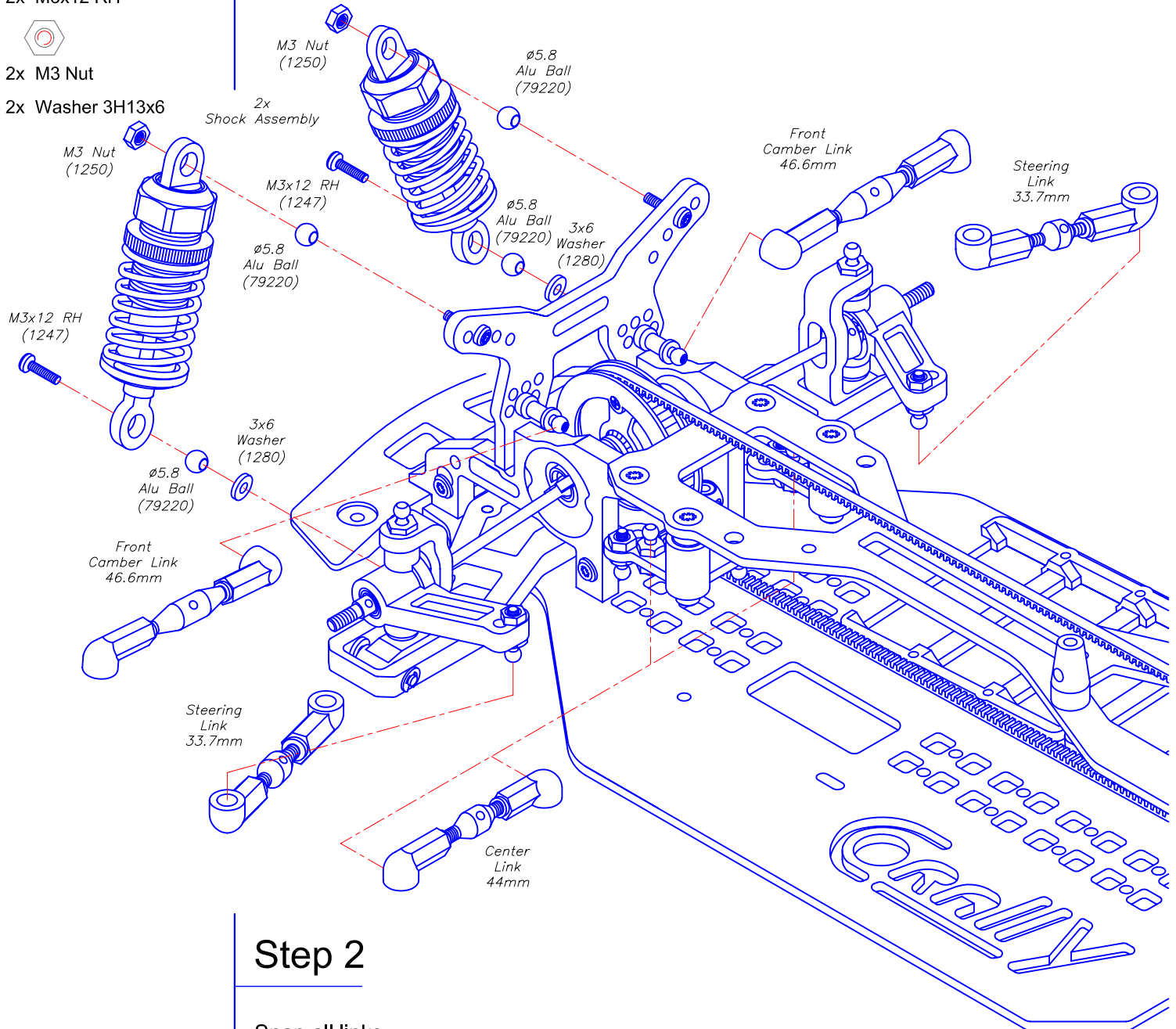
Steering Link (#79270)



Center Link (#79271)



- 3x Turnbuckle 33mm
- 1x Turnbuckle 28mm
- 2x Turnbuckle 20mm
- 12x Ballcup (#79260)
- 4x Ø5.8mm Jointball
- 2x M3x12 RH
- 2x M3 Nut
- 2x Washer 3H13x6



## Step 2

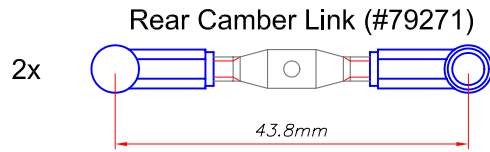
Snap all links in place with a plier.

Snap the aluminium balls in the shocks and mount them to the shocktower and wishbones (inner hole).

# Bag 7 Suspension 2 (Rear)

## Step 1

Assemble 2 Turnbuckles as shown. (Scale 1:1)



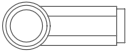
## Step 2

Snap the rear camber links in place with a plier.

Snap the aluminum balls in the shocks and mount them to the shocktower and wishbones (outer hole).



2x Turnbuckle 28mm



4x Ballcup (#79260)



4x Ø5.8mm Jointball

2x 3.3mm Spacer

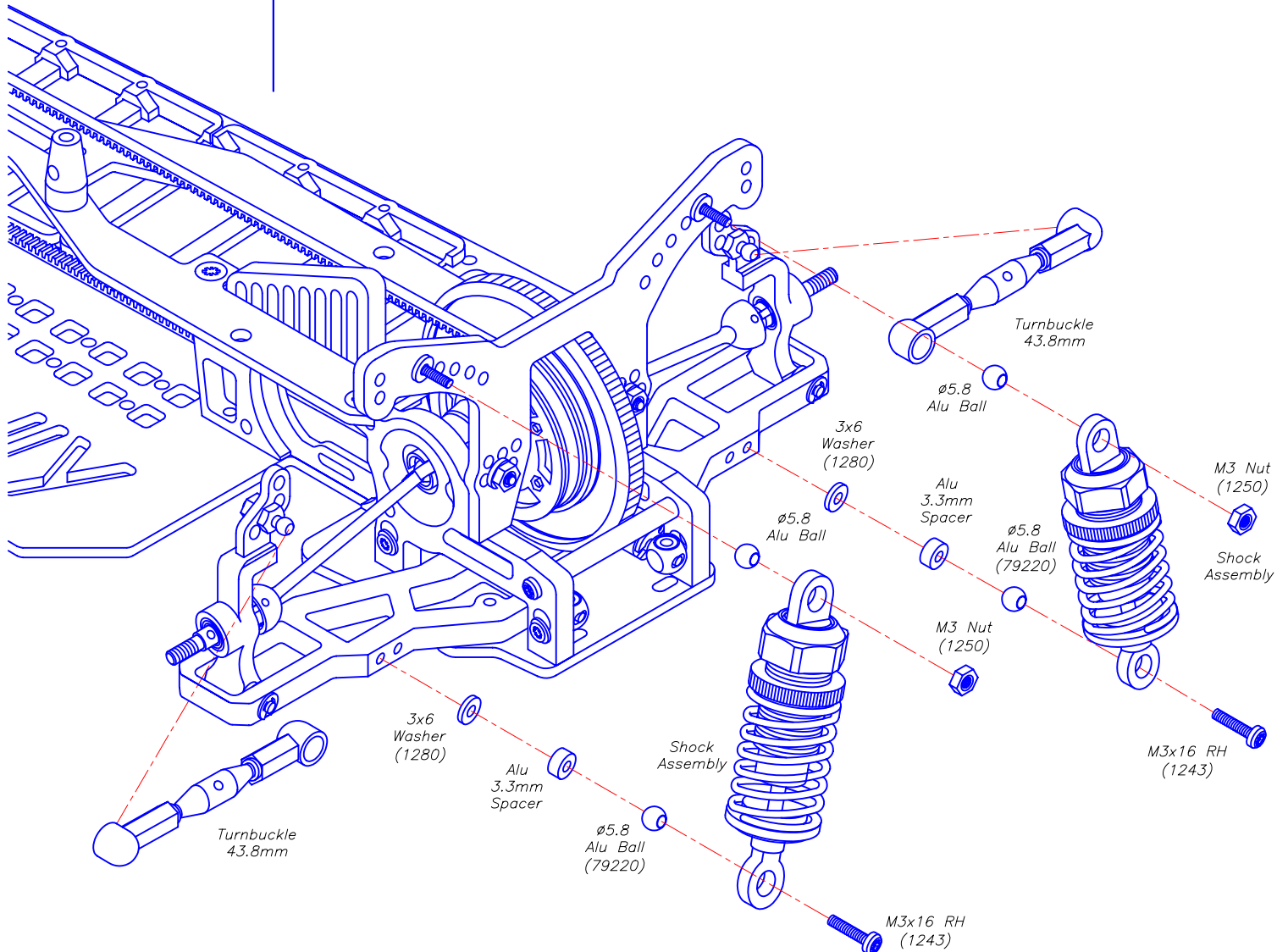


2x M3x16



2x M3 Nut

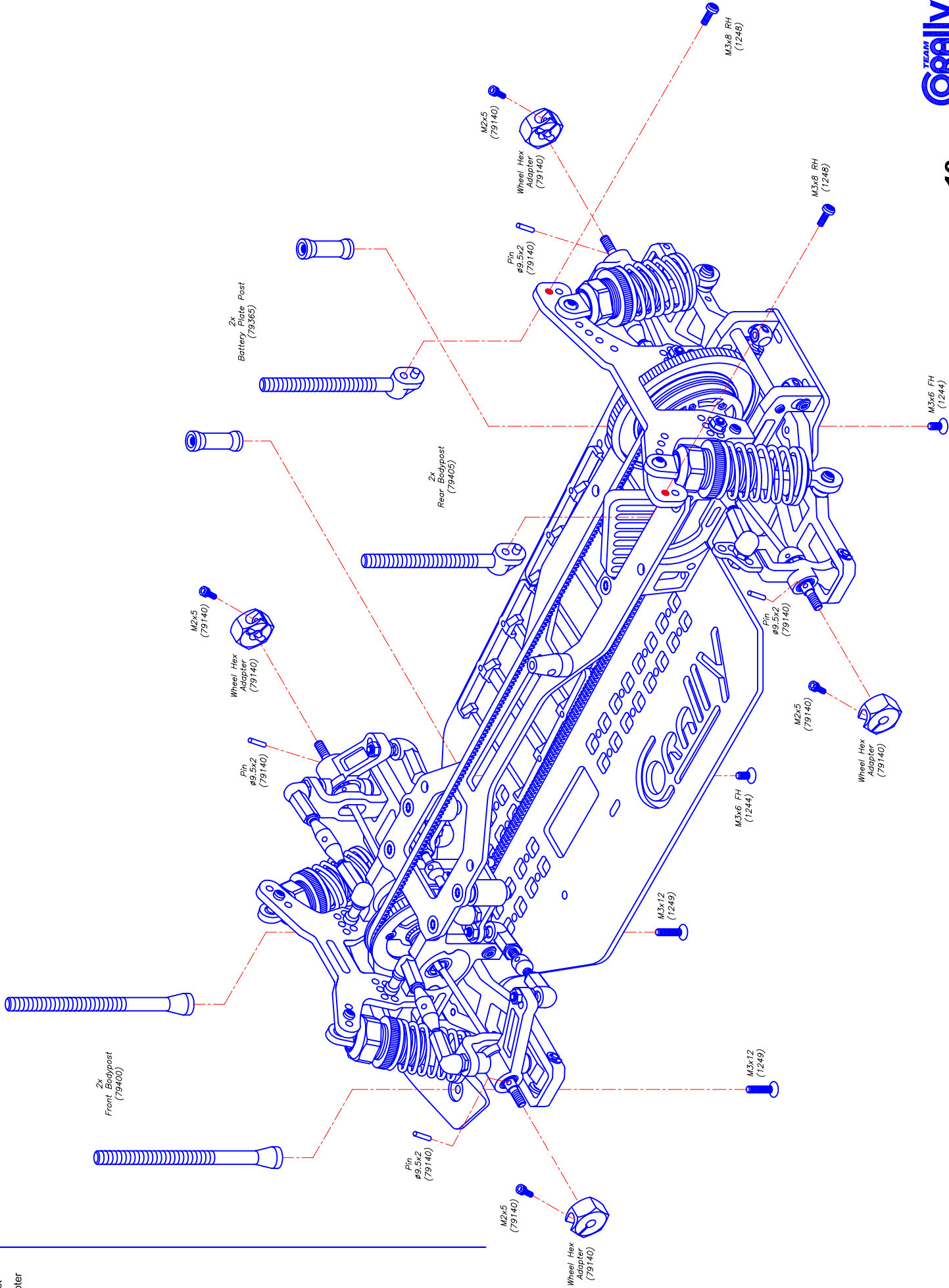
2x M3 Washer





# Bag 8 Finals (Wheelhex & Bodyposts)

- 2x Front Bodypost
- 2x Rear Bodypost
- 2x Battery Plate Post
- 4x Wheel Hex Adapter
- 4x Pin Ø9.5x2

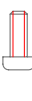


# Bag 8 Finals (Wheels & Foambumper)

- 1x Foambumper
- 1x Bumperplate
- 2x Bodypost Nut
- 4x Pre-Glued Corally SS-B 24mm Wheel
- 1x Transponder Holder
- 2x Servo Post
- 2x M3 Washer



- 1x Short Jointball 4.3mm



- 2x M3x8 RH



- 2x M3x6 FH



- 4x M4 Locknut



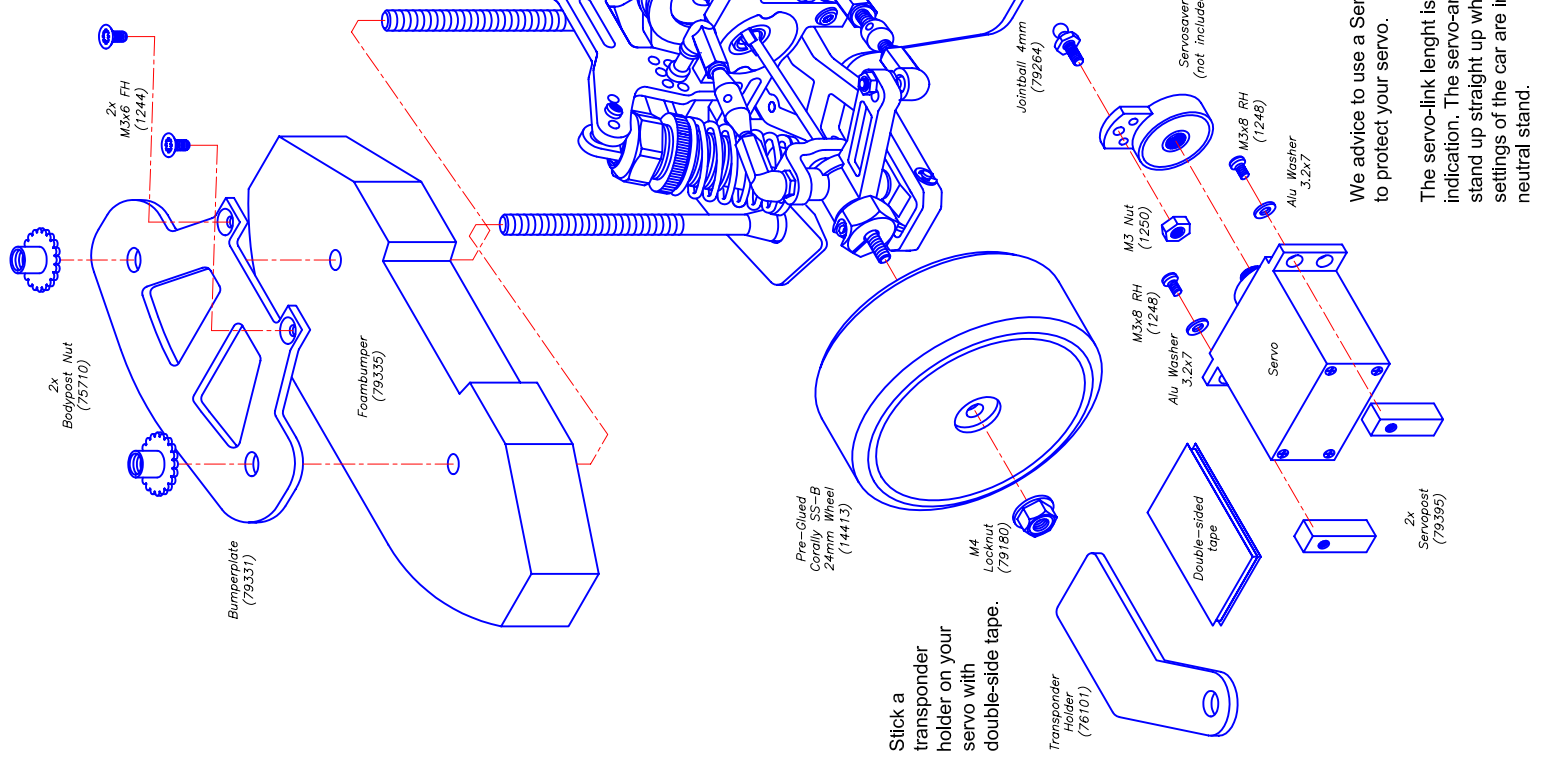
- 1x M3 Nut

- 1x Transponder Holder

## Not Included:

- Double-sided Tape

For easy-mounting the countersunk screws of the Bumperplate the mounting-screws of the Front Shocktower can be loosened. Then there will be better access for mounting the Bumperplate.



Stick a transponder holder on your servo with double-side tape.

We advice to use a Servosaver to protect your servo.  
The servo-link length is just an indication. The servo-arm must stand up straight up when all the settings of the car are in the neutral stand.

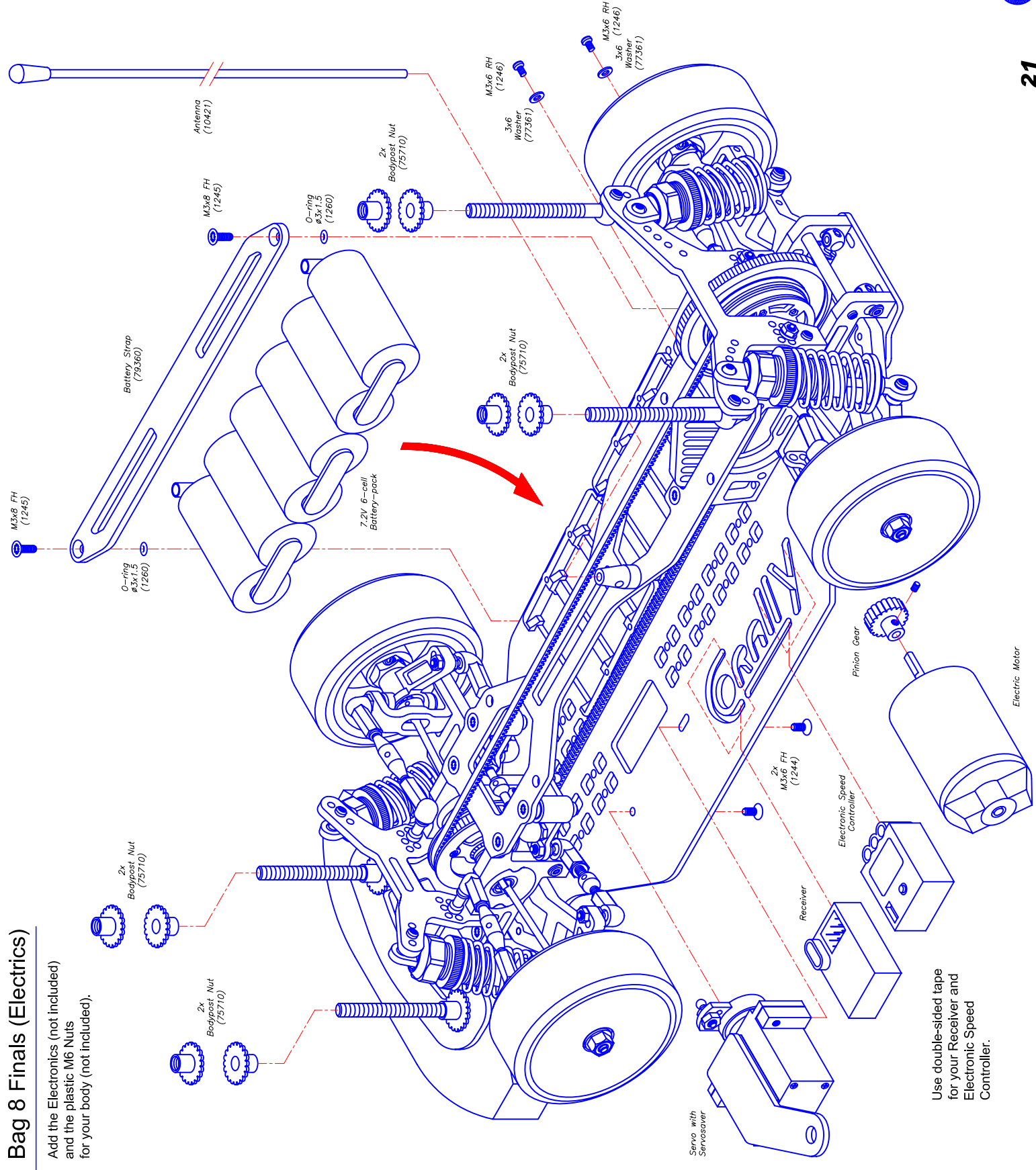
## Bag 8 Finals (Electrics)

Add the Electronics (not included) and the plastic M6 Nuts and the plastic M6 Washers (not included).

- 1x Battery Strap
- 8x Bodypost Nut
- 2x M3x6 RH
- 2x M3x8 FH
- 2x M3x6 FH
- 2x M3x3 Setscrew
- 2x M3 Washer
- 2x O-ring 3x1.5

### Not Included:

- Servo with Servosaver
- Electronic Speed Control
- Receiver
- 7.2V Battery-pack (6-cell)
- Electric Motor
- Pinion Gear



Use double-sided tape for your Receiver and Electronic Speed Controller.

Turn the transmitter on.

Make sure the motor is disconnected.

Connect your battery pack.

Turn the power switch on.

Make sure the wheels move in the correct direction.

Turning the steering control left must move the wheels to left and turning it right must move the wheels to right.

Adjust the servo link that your servo saver is exactly rising up.

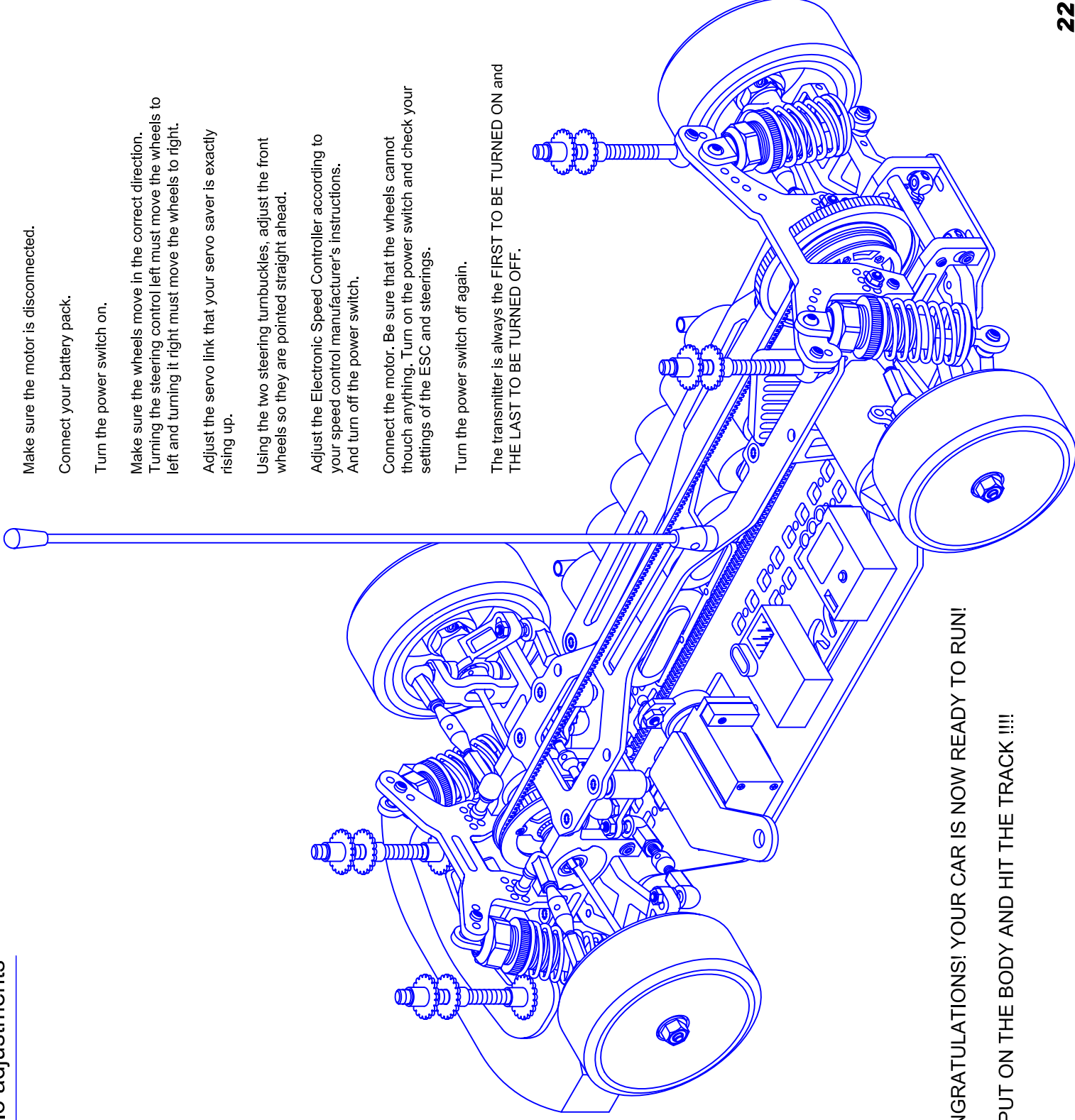
Using the two steering turnbuckles, adjust the front wheels so they are pointed straight ahead.

Adjust the Electronic Speed Controller according to your speed control manufacturer's instructions. And turn off the power switch.

Connect the motor. Be sure that the wheels cannot touch anything. Turn on the power switch and check your settings of the ESC and steering.

Turn the power switch off again.

The transmitter is always the FIRST TO BE TURNED ON and THE LAST TO BE TURNED OFF.





CONGRATULATIONS! YOUR CAR IS NOW READY TO RUN!

SO PUT ON THE BODY AND HIT THE TRACK !!!

- 1x Anti-roll Bar Front 1.9mm
- 1x Anti-roll Bar Rear 1.9mm
- 2x Double Balljoint
- 2x Anti-roll Bar Mount
- 4x 6mm Jointball
- 4x Aluminium M3 Nut
- 4x 6mm Jointball

-  2x M3x3 Setscrew

-  2x M3x12 RH

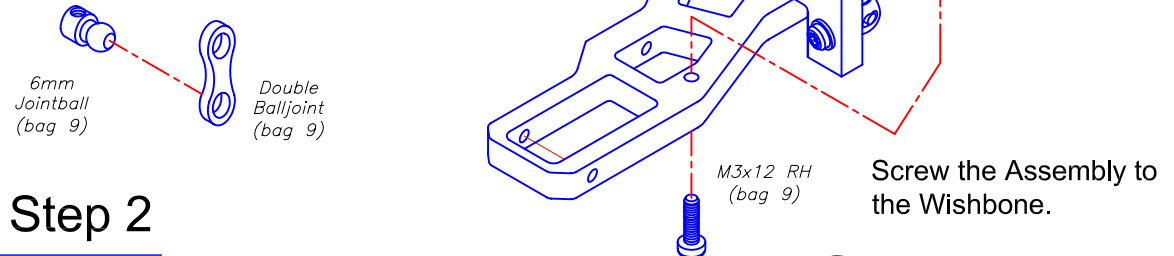
-  2x M3x6 FH

# Bag 9 Optional Anti-roll Bar

You have the option to mount either the front (see below instructions) or the rear anti-roll bar. Follow the same mounting procedure if you choose to mount the rear anti-roll bar.

## Step 1

Snap the Jointball in the Double Balljoint. Do this for the left and right.

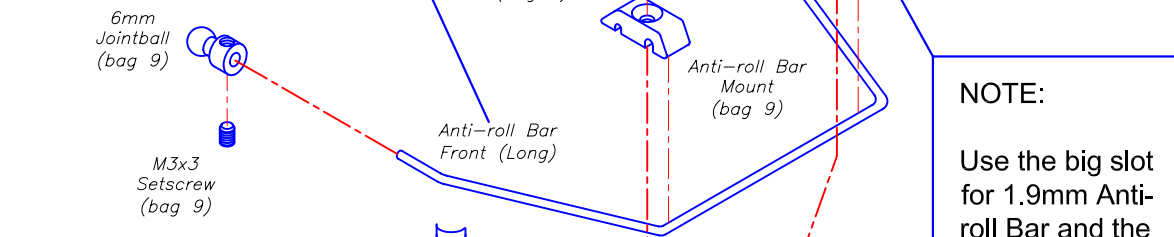


## Step 2

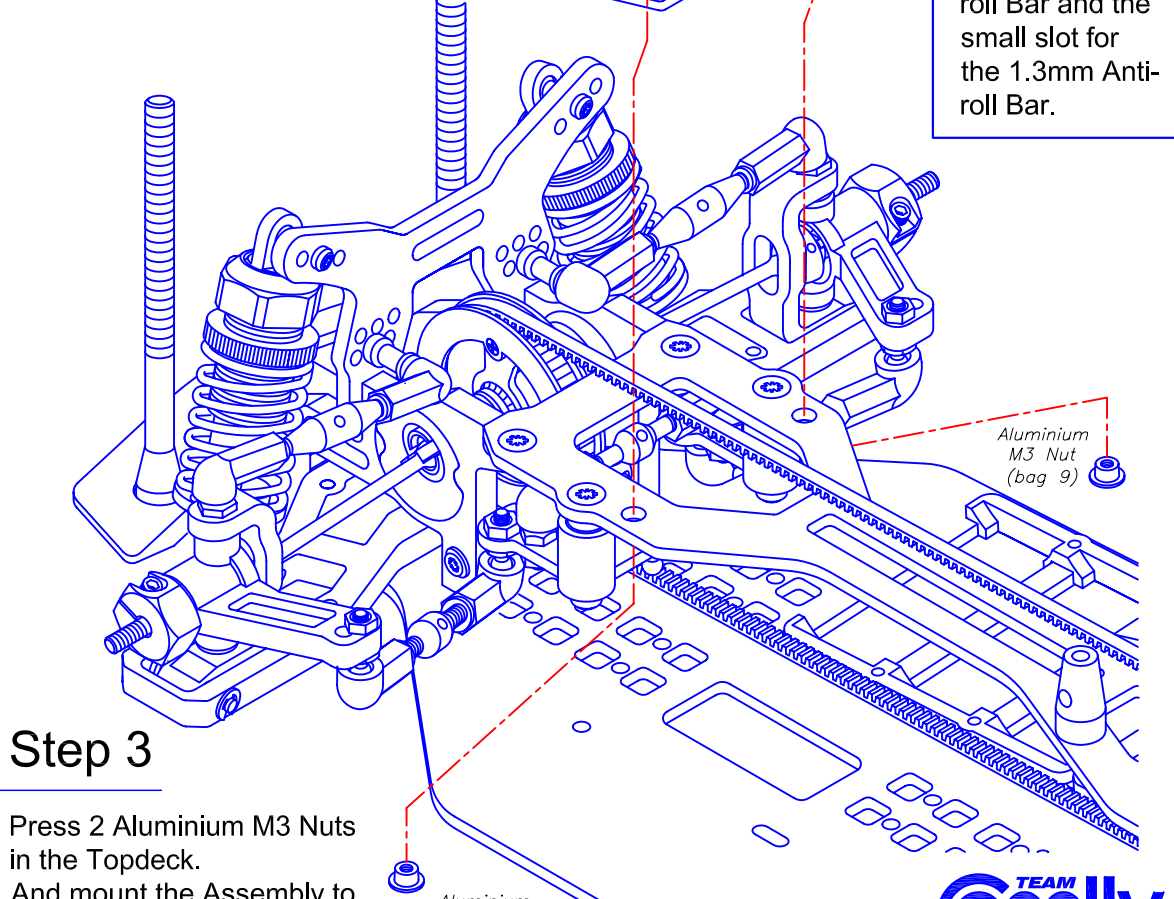
Screw 2 Jointballs to the Anti-roll Bar. Then snap the Jointballs in the Double Balljoint.

**Front options:**  
 Anti-roll Bar Front 1.9mm (STD in kit)  
 Anti-roll Bar Front 1.3mm (79412-opt)

**Rear options:**  
 Anti-roll Bar Rear 1.9mm (STD in kit)  
 Anti-roll Bar Rear 1.3mm (79413-opt)



**NOTE:**  
 Use the big slot for 1.9mm Anti-roll Bar and the small slot for the 1.3mm Anti-roll Bar.



## Step 3

Press 2 Aluminium M3 Nuts in the Topdeck. And mount the Assembly to the Topdeck.

Aluminium M3 Nut (bag 9)

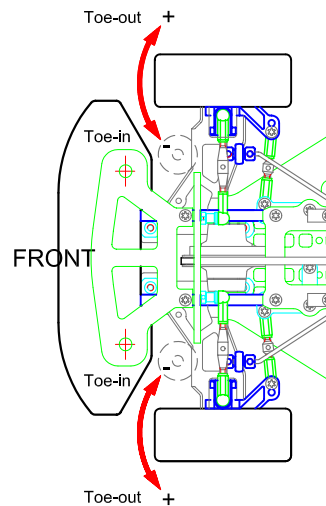


# Race adjustments:

Your Assassin Touring comes with many possible geometry adjustments, shock adjustment, drivetrain adjustment etc. To guide you through these ways of optimising your car's performance, we have included up one basic sheet for indoor carpet racing on a tight small track and for outdoor tarmac racing on a wide, flowing track. These make good starting points for any track or grip conditions but further improvements can be made with the following tuning tips.

## Front toe-in / toe-out:

Toe-in of the front wishbones will make the suspension work better on bumpy conditions.



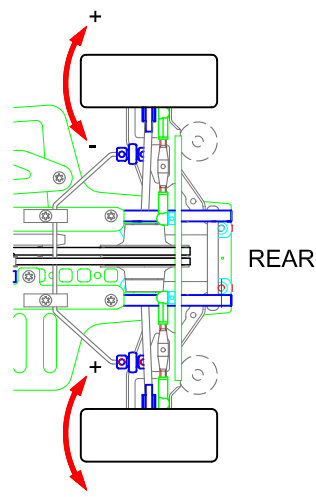
Toe-in:  
Easier to drive  
Improves stability during acceleration.

Toe-out:  
Harder to drive.  
Increases steering entering corners.

Adjust for neutral. A slight amount of toe-out will increase the turn-in of the car but too much will make the car difficult to drive.

[min. = -1 / max. = +1]

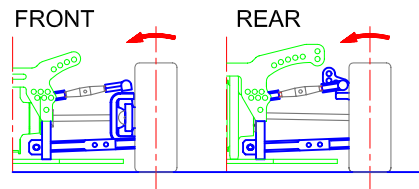
## Rear toe-in:



More toe-in will make the car easier to drive out of the corners, but the turn-in of the car will be decreased. Less toe-in will make the car slightly faster and more efficient, but a bad handling car will never make your car faster on the track! Toe-out should never be used in the rear. This can be adjusted on the hinge pin adjustment blocks in the center of the car. Use the rings of 0.4mm for 0.5° settings and 0.8mm for 1° settings.

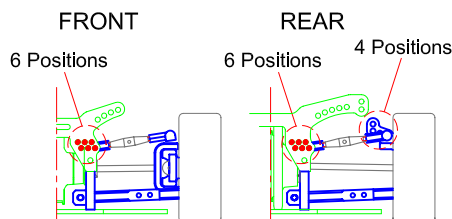
[min. 0 / max. 3.5]

## Camber:



Adjust the camber for equal tyre wear on the in- and outside of the tires. The tire should have a maximum contact with the track for maximum grip. Slightly more camber will make the car lose grip slightly earlier, but more progressive and sometimes easier to drive.  
[min. 0 / max. 4]

## Camber Link Locations:

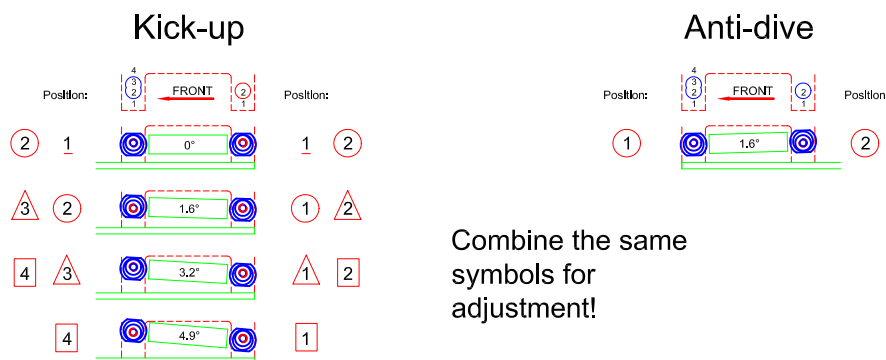


The Assassin has a couple of camber-link locations. We recommend to start off by mounting the camberlinks in 1 of the 3 lower positions on the the shocktower. This give more camber while cornering thus stability. The longer or higher the link, the more traction and less stability. The shorter or lower the link, the less traction and greater stability.

## Front Caster:

More Caster will make the car turn-in less, but turn-out better. This can be arranged with the optional C-hubs.  
[min. 0 / 2 / 4 / max. 6]

## Front Kickup and anti-dive:



Refers to the angle in which the front suspension is mounted in relation to horizontal when looked from the side of car. Kickup and anti-dive are adjusted by changing the angle of the front wishbones, which can be done by the aluminium hinge pin adjustment blocks.

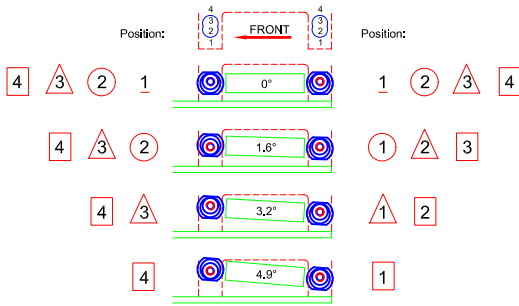
The setting of 0° kickup will have more aggressive steering feeling but will not absorb bumps well.

The setting of 1.6° kickup will work better in most conditions, especially in bumpy conditions.

For more bumpy conditons, the setting of 3.2° and 4.9° can also be arranged.

The anti-dive setting of 1.6° will give a very aggressive steering feeling and will improve front braking traction entering corners. When using anti-dive a differential must be used in the front. However, this setting will not work in bumpy conditions.

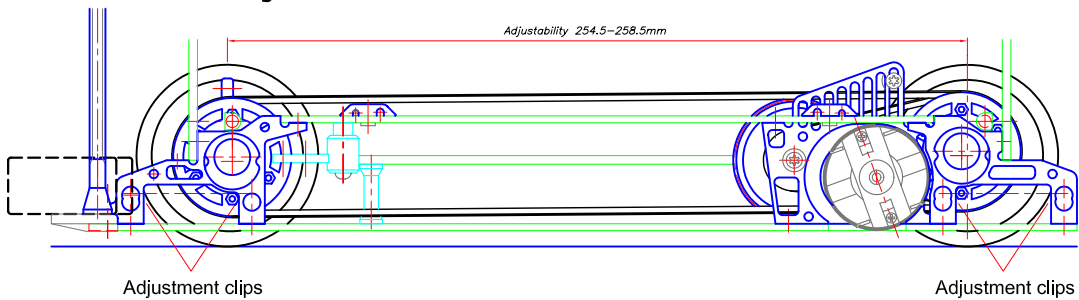
## Rear anti-squat:



Combine the same symbols for adjustment!

Describes the angle at which the rear suspension is mounted when looked at from the side of the car. The setting of 0° anti-squat will give less rear traction, but gives more acceleration in bumpy conditions and increase steering slightly. A setup of 1.6° will give some more rear traction, but they will reduce steering. For more rear traction 3.2° and 4.9° are other possibilities, but they will reduce even more steering.

## Wheelbase adjustment:



Adjust the wheelbase by moving the black plastic clips.

Moving the clips to the front of the front wishbones will shorten the wheelbase and decrease rear traction and greater stability.

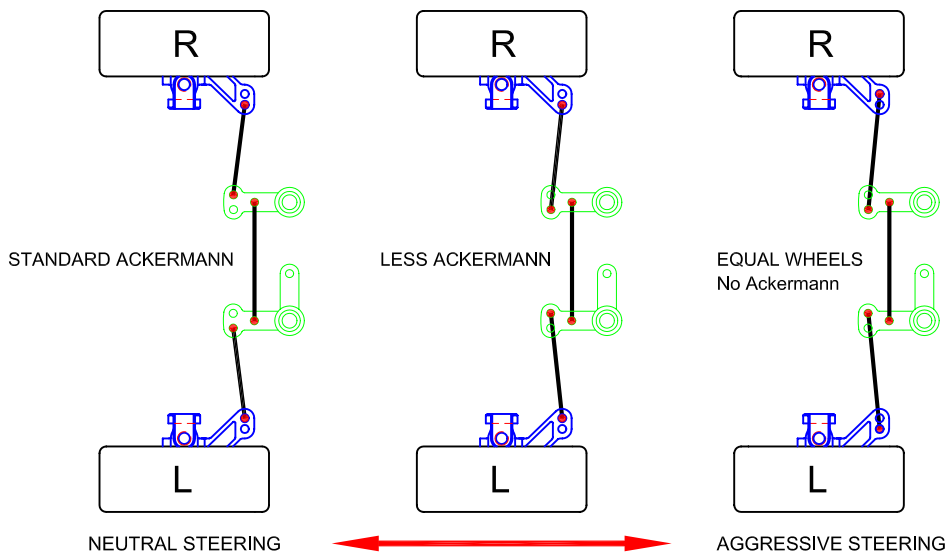
Moving the clips to the rear of the front wishbones will lengthen wheelbase and increase rear traction.

Moving the clips to the front of the rear wishbones will lengthen the wheelbase and decrease rear traction and greater stability.

Moving the clips to the rear of the rear wishbones will shorten the wheelbase and increase rear traction.

## Ackermann:

This is a term describing the effect of the inner front wheel turning tighter than the outside front wheel. The standard setup works in most conditions and will provide a very neutral steering. With less Ackermann there will be a more aggressive steering feeling.



## Shock Springs:

Try to keep your car level during acceleration, deceleration and cornering.

Stiffer springs will help your suspension respond more quickly, but because of their stiffness will not absorb bumps well. Use stiffer springs in high traction conditions such as carpet racing.

Softer springs are best for slippery or bumpy conditions.

## Ride Height:

This describes the height of the chassis in relation to the surface sitting on. This adjustment must be made with the chassis ready-to-run but with no body. By turning the spring adjustment nut the chassis can be raised or lowered. Start with about 6mm clearance between the chassis and ground. Try using a slightly lower ride height for high traction conditions as carpet racing. Do not use a ride height lower than 4mm.

## Anti-Roll Bars:

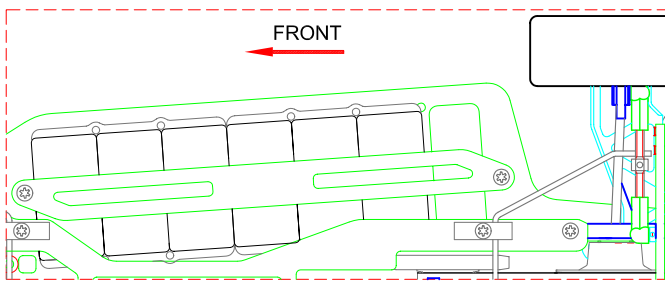
These are used to stabilize a car from excessive roll (which occurs when your car leans through the turns by centrifugal force).

Anti-roll bars are generally used on smooth, high traction track conditions. If the conditions are very bumpy, then anti-roll bars are probably not necessary.

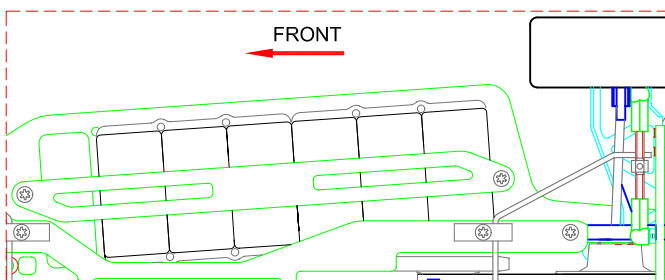
If you are driving on a high traction surface and your car wants to oversteer, then use the optional **#79412** (soft) anti-roll bar or **#79416** (hard) on the front only. This will decrease the front chassis roll and decrease steering throughout the corner. This has the feeling of increasing rear traction.

If your car is understeering, then try the optional **#79413** (soft) anti-roll bar or **#79417** (hard) anti-roll bar on the rear only. The rear anti-roll bar will decrease rear chassis roll and decrease rear traction (this has the feeling of increasing steering).

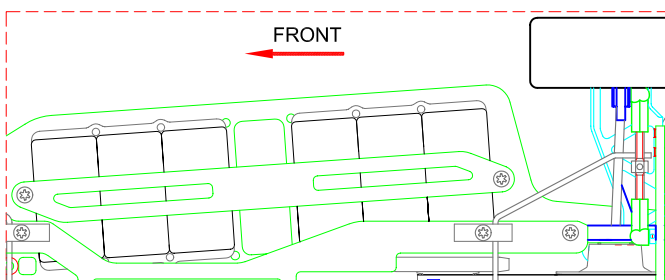
## Battery Placement:



Batteries to front:  
Less traction.  
More steering.

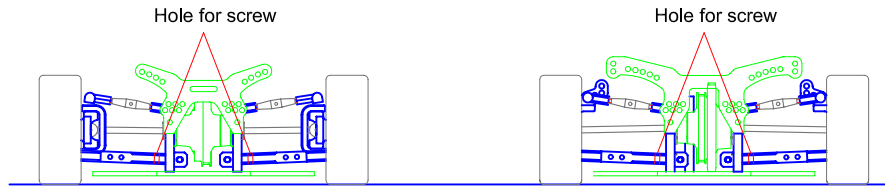


Batteries to rear:  
More traction.  
Less steering.



Batteries separated:  
Slightly more steering.  
Slightly less rear traction.  
Easy to drive.

## Downstops:



### Front:

- Less droop (lower max chassis height) makes the car smoother in the middle of corner and gives more steering under acceleration. Sometimes too little droop makes a car difficult to accelerate out from corners.
- More droop gives more steering response in the middle of corner and makes car push on throttle.

### Rear:

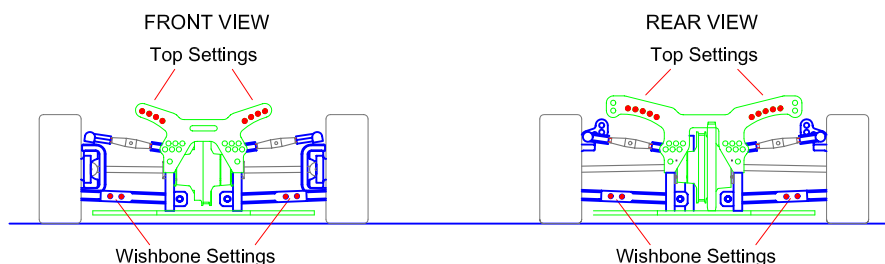
- Less droop makes rear more stable to the corner and gives less grip in the middle and out from the corner.  
Less droop will heat up tires more.
- More droop reduces rear grip into the corner, but rear tires stays cooler and car works more stable through your heat.

The wishbones are already prepared for using downstops. Screw a M3x12 Setscrew in the hole as marked above. Left and right should be the same. But don't use your downstops for lowering your chassis, because this isn't the way to do so. This must be done by the spring adjustment of your dampers.

## One-way:

The left and right wheel can rotate independantly from each other, when power off entering a corner. This will give slightly more steering, so the corner can be taken faster. When power on again both front wheels rotate with the same speed, so it accelerates faster out of the corner. For the real racer this is a one to have thing and comes standard in this kit!

## Shock position:



The Assassin allows 4 front and 5 rear top fixing positions for the shock absorbers. The highest setting will make the spring most progressive, which will decrease chassis roll. The lowest setting will make the springs slightly more linear, which will increase grip, but also chassis roll (and therefore decrease cornering speed).

## **Tires & Inserts:**

These possibilities cannot be fully exploited if the car does not run on quality wheels. Tires and inserts are two of the most influential changes you can make to your car. The Assassin kit comes with Corally SS-B pre-glued tires on Dish wheels with medium inserts. This is a good racing tire for most racing conditions. If you would like a tire for colder racing conditions, try Corally SS-A compound with other inserts. There's a variety of softer and harder inserts available, so just try them with different weather or track conditions!

## **Tire Additives:**

For getting even more out of the tires a couple of our Tire Additives can be used. Apply it on the tires at least 15 minutes before the race. Dry the tyres a few minutes before the race.

- TC-1 (#13788) Formulated for foam tires on carpet
- TC-2 (#13779) Jack the Gripper (Minimum Odour)
- TC-3 (#13789) Unpleasant Smell, Maximum Traction

## **Setup Sheet:**

There's a setup sheet included in this manual. Set up your Assassin with the standard settings at right, then deviate from them in response to your track conditions and driving style, as noted below.

Tips for beginners:

For best result, make only one setup change at a time, testing it before making another change. Make a copy of the setup sheet included in this manual to help to keep track of your changes.

Before make any changes to standard setting, make sure you can get around the track without crashing. None of your setup changes will work if you cannot stay on the track. Your goal is consistent laptimes. Inconsistent lap times may indicate poor control. When you have consistent lap times, then make changes to your car. If the change results in a faster lap, then mark the change in your setup sheet.

If performance is worse, then revert to previous setup and try another change.

Fill out your setup sheet thoroughly when you are satisfied with it and file it away. It can be a practical guide for future track lay-outs and conditions you encounter .

We wish you best luck and see you at the track!



## Overall Gear Ratio Chart:

<b>48 dp</b>	<b>96T 1-belt (1:1) Short Pinion</b>	<b>78T 2-belt (1:2) Long Pinion</b>
<b>16</b>	<b>6.00</b>	<b>9.75</b>
<b>17</b>	<b>5.65</b>	<b>9.18</b>
<b>18</b>	<b>5.33</b>	<b>8.67</b>
<b>19</b>	<b>5.05</b>	<b>8.21</b>
<b>20</b>	<b>4.80</b>	<b>7.80</b>
<b>21</b>	<b>4.57</b>	<b>7.42</b>
<b>22</b>	<b>4.36</b>	<b>7.09</b>
<b>23</b>	<b>4.17</b>	<b>6.78</b>
<b>24</b>	xxx	<b>6.50</b>
<b>25</b>	xxx	<b>6.24</b>
<b>26</b>	xxx	<b>6.00</b>
<b>27</b>	xxx	<b>5.78</b>
<b>28</b>	xxx	<b>5.57</b>
<b>29</b>	xxx	<b>5.38</b>
<b>30</b>	xxx	<b>5.20</b>
<b>31</b>	xxx	<b>5.03</b>
<b>64 dp</b>	<b>128T 1-belt (1:1) Short Pinion</b>	<b>104T 2-belt (1:2) Long Pinion</b>
<b>21</b>	<b>6.10</b>	<b>9.90</b>
<b>22</b>	<b>5.82</b>	<b>9.45</b>
<b>23</b>	<b>5.57</b>	<b>9.04</b>
<b>24</b>	<b>5.33</b>	<b>8.67</b>
<b>25</b>	<b>5.12</b>	<b>8.32</b>
<b>26</b>	<b>4.92</b>	<b>8.00</b>
<b>27</b>	<b>4.74</b>	<b>7.70</b>
<b>28</b>	<b>4.57</b>	<b>7.43</b>
<b>29</b>	<b>4.41</b>	<b>7.17</b>
<b>30</b>	<b>4.26</b>	<b>6.93</b>
<b>31</b>	xxx	<b>6.71</b>
<b>32</b>	xxx	<b>6.50</b>
<b>33</b>	xxx	<b>6.30</b>
<b>34</b>	xxx	<b>6.11</b>
<b>35</b>	xxx	<b>5.94</b>
<b>36</b>	xxx	<b>5.78</b>
<b>37</b>	xxx	<b>5.62</b>
<b>38</b>	xxx	<b>5.47</b>
<b>40</b>	xxx	<b>5.20</b>
<b>41</b>	xxx	<b>5.07</b>
<b>42</b>	xxx	<b>4.95</b>



Driver: \_\_\_\_\_

Track / City: \_\_\_\_\_

Event: \_\_\_\_\_ Date: \_\_\_\_\_

# SETUP SHEET

## Front Suspension

Caster \_\_\_\_\_ Downstops \_\_\_\_\_ mm

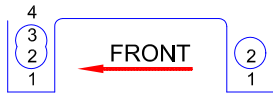
Kickup \_\_\_\_\_ Anti-roll Bar \_\_\_\_\_

Toe-in \_\_\_\_\_ Toe-out \_\_\_\_\_

Camber \_\_\_\_\_

Ride Height \_\_\_\_\_

Wheelbase \_\_\_\_\_  
Adjustment \_\_\_\_\_

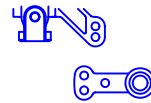


## Front Shocks

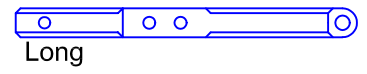
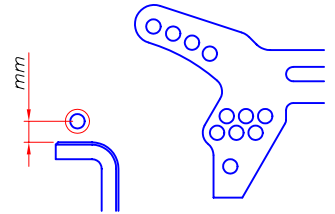
Oil \_\_\_\_\_ WT

Spring \_\_\_\_\_ lbs

Ackermann  
Setting



Shock Mount &  
Camber Link



Long  
Short

## Rear Suspension

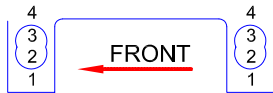
Anti-squat \_\_\_\_\_ Downstops \_\_\_\_\_ mm

Toe-in \_\_\_\_\_ Anti-roll Bar \_\_\_\_\_

Camber \_\_\_\_\_

Ride Height \_\_\_\_\_

Wheelbase \_\_\_\_\_  
Adjustment \_\_\_\_\_

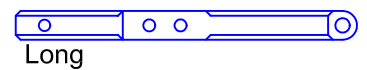
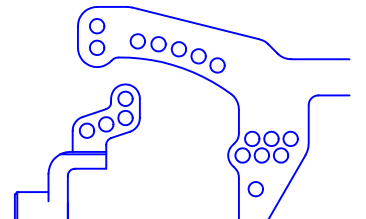


## Rear Shocks

Oil \_\_\_\_\_ WT

Spring \_\_\_\_\_ lbs

Shock Mount &  
Camber Link



Long  
Short

## Others

Front Tires \_\_\_\_\_ Compound \_\_\_\_\_ Insert \_\_\_\_\_ Wheel \_\_\_\_\_

Rear Tires \_\_\_\_\_ Compound \_\_\_\_\_ Insert \_\_\_\_\_ Wheel \_\_\_\_\_

Battery Placement Back / Front / 3+3

Comments \_\_\_\_\_

Chassis Mid / Rear

Drivetrain 1-Belt / 2-Belt Front Drive Diff / One-way Spur / Pinion \_\_\_\_\_ T / \_\_\_\_\_ T

Motor \_\_\_\_\_ Brush \_\_\_\_\_ Spring \_\_\_\_\_

Radio \_\_\_\_\_ Servo \_\_\_\_\_ ESC \_\_\_\_\_

Body \_\_\_\_\_ Wing \_\_\_\_\_

Tire Additive \_\_\_\_\_ Lead Weights \_\_\_\_\_ g

## Track Conditions

Surface \_\_\_\_\_

Traction Low / Medium / High

Composition \_\_\_\_\_

Temp. \_\_\_\_\_

## Race Comments

Main \_\_\_\_\_ Finish \_\_\_\_\_ Qualifying Pos. \_\_\_\_\_

Notes \_\_\_\_\_

