

# Serpent ERYX 4.4



 Serpent

**Instruction  
Manual**

## **INTRODUCTION**

Thank you very much for selecting this Serpent rc car and thus become a member of the ever growing worldwide Serpent racing family. Serpent started in 1980 and has been growing its product-line and fan-base ever since.

The Serpent Eryx 4.1 is a state of the art 1/10 scale 4wd touringcar which will give you the true Serpent racing experience. The assembly manual will guide you through all the steps to complete the car, so you can hit the track with a good base-set-up soonest. The Serpent design department succeeded to create a superbly performing car combined with eas of assembly and maintenance. The high quality standards of all parts and hardware will make racing your Serpent car a very rewarding activity!

Team Serpent  
Multiple World Champions

## **INSTRUCTIONS**

Serpent's long tradition of excellence extends to the instruction manuals, and this instruction manual is no exception. The easy-to-follow layout is richly illustrated with 3D-rendered full-color images to make your building experience quick and easy. Following the instructions will result in a well-built, high-performance race-car that will soon be able to unleash its full potential at the racetrack. The kit includes bags, with bagnumbers, which refer to the same step in the manual. Open only the indicated bag(s) per step and finish that part of the assembly. Remaining parts will be needed lateron in the assembly process.

## **PLASTIC PARTS**

The Serpent moulded parts are very durable and hard. When assembling longer screws in new composite parts, make sure to use new hex bits in your (power) tools. Pre-threading also helps to avoid screw damage.

## **SETUP**

In certain assembly steps you need to make basic adjustments, which will give you a good initial setup for your Serpent Eryx 4.1. Fine-tuning the initial setup is an essential part of building a high-performance racecar like your Serpent Eryx 4.1.

## **EXPLODED VIEWS AND PARTS LIST**

The exploded views and parts lists for the Serpent Eryx 4.1 are presented in the Reference Guide section in the back of this manual. The exploded views show all the parts of a particular assembly step along with the Serpent part number and hotlink to the Serpent website. Partnumbers in orange indicates that this part is an optional. Optionals part names and numbers are showed below.

## **CUSTOMER SERVICE**

Serpent has made a strong effort to make this manual as complete and clear as possible. Additional info may be published in our website: [www.serpent.com](http://www.serpent.com) or you may ask your dealer or the Serpent distributor for advice, or email Serpent direct: [info@serpent.com](mailto:info@serpent.com). The Serpent Facebook, Twitter and Youtube pages give additional means of support and communications.

## **SAFETY**

Read and take note of the 'Read this First section' before proceeding to assemble the car-kit. This car-kit is intended for persons aged 16 or older.

## **READ THIS FIRST!**

- This is a highly technical hobby product, intended to be used in a safe racing environment. This car is capable of speeds in excess of 80 km/h or 50mph. Please follow these guidelines when building and operating this model.
- Parental guidance is required when the builder/user of this car is under 16.
- Follow the building instructions. If in doubt, contact your dealer or importer.
- Be sure to use the proper tools when assembling the car. Always exercise caution when using electric tools, knives and other sharp objects.
- Be careful when using liquids like lubrication oil, fuel or glue. Do not swallow.
- Follow the manufacturer's instruction in case you experience irritation after using the product.
- Be careful when operating the car. Stay away from any rotating parts such as wheels, gears and transmission. Stay away from motor, engine and exhaust pipe system or speedo during and immediately after use, as these parts may be very hot. We advise to use protective hand cloves.
- Only operate this car in a safe environment, like a special racing track or a closed parking lot. Avoid using this car on public roads, crowded places or near infants.
- Before operating this car, always check the mechanical status of the car. Also check that the transmitter and receiver frequencies correspond and are not used by any other racer at the same time. Check that the batteries of the transmitter and receiver- are fully charged.
- After use, always check all the mechanics of the car. We advise to clean the car immediately after use, and inspect the parts for wear or fractures. Replace when necessary. Do not use water, methanol, thinner or other solvents to clean the car.
- Empty the fuel tank (depending on model) if needed and disconnect the receiver battery.
- Store the car in a dry and heated place to avoid corrosion of metal parts.
- Avoid using this car in wet conditions as the water will cause corrosion on the metal parts and bearings and these parts will cease to function properly. If driven in the wet, ensure that all the electric equipment is waterproofed and after use, that all moving parts are dried immediately.

## **CONTENTS**

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## LINES DESCRIPTION

Each step contains a variety of numbers, lines, and symbols. The numbers represent the order in which the parts should be assembled. The lines are described below.



Step number; the order in which you should assemble the indicated parts



Length after assembly



Assembly path of one item into another



Group of items (within lines) should be assembled first



Direction the item should be moved



Glue one item to another



Connect one item to another



Gap between two items



Press/Insert one item into another

## ICONS DESCRIPTION

Each step contains a variety of symbols described below.



Carefull, read and check very well.



Apply a small amount of cyano glue. Use wear protection for eyes and hands.



Detail view to explain assembly or order of parts better.



Default set-up: This symbol indicates the default setup.



Grease: apply a small amount of grease to the parts shown.



Silicone grease: apply a small amount of grease to the parts shown.



Thread lock: apply a small amount on the parts shown. Before to apply the threadlock, make sure to degrease the parts very well, as otherwise the threadlock will not work.



Silicone oil: use the indicated silicone oil for the shocks and differentials.



Oil: apply a small amount of oil to the parts shown.



Left and right parts should be assembled in the same way.



Parts or items not included in the kit.

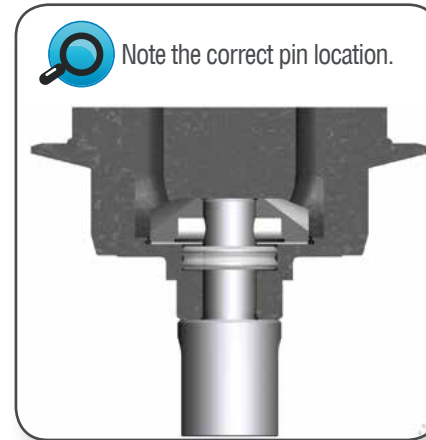
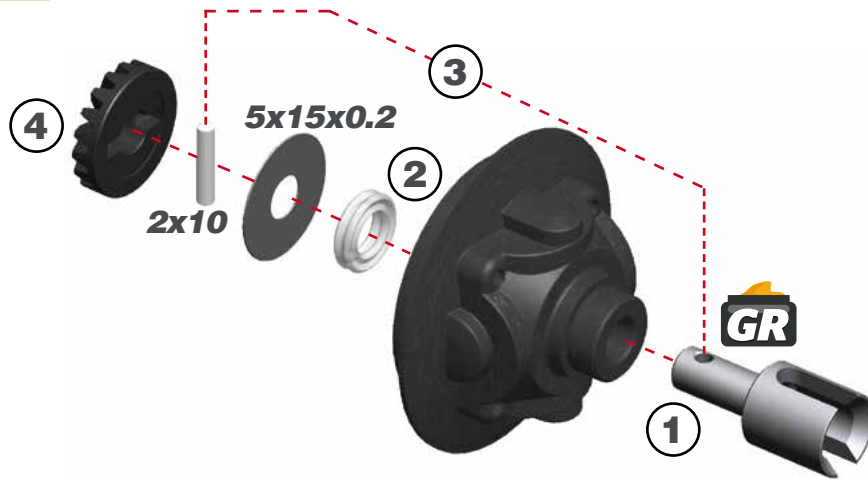


Optional part, not standard in the kit.

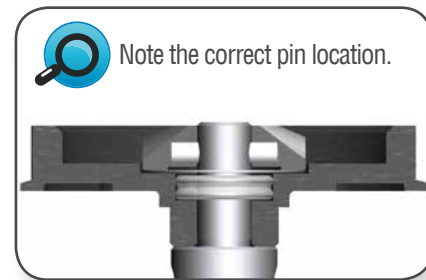
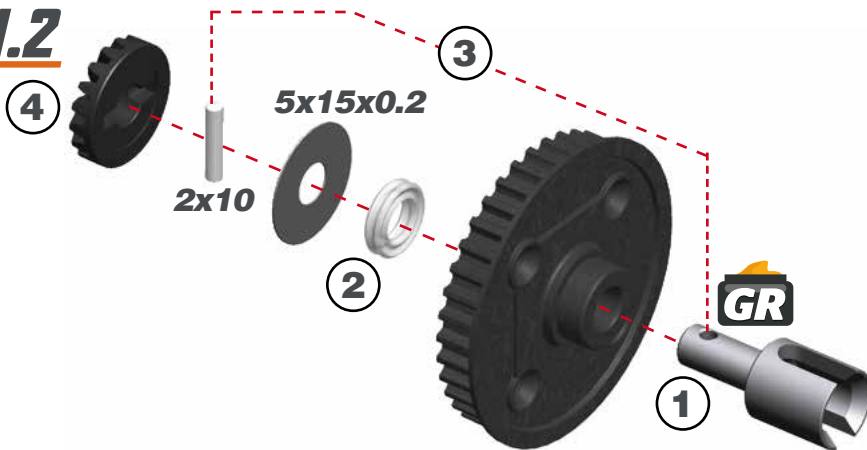
## STEP 1

### DIFF BAG

#### 1.1



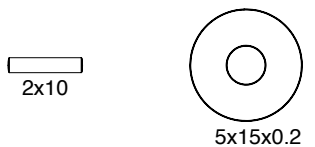
#### 1.2



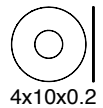
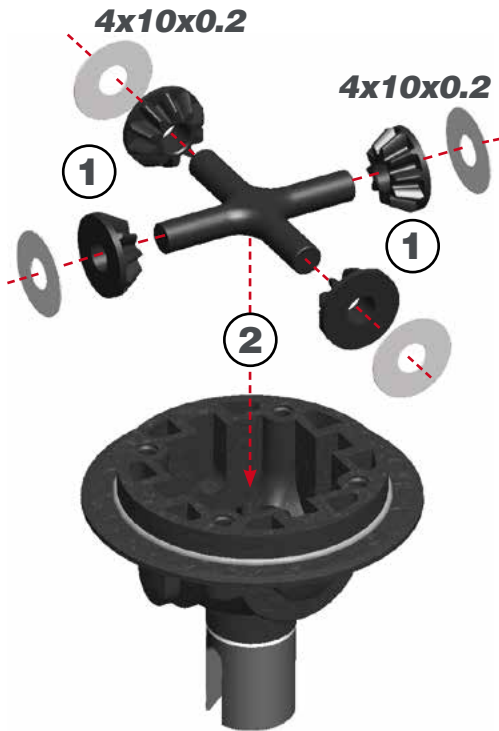
## STEP 2

1- Fit the o ring before filling the diff with silicone oil.


2- Add just enough oil to cover the large gear before assembling the small satellite gears and cross pins. Use the silicone oil supplied in the kit. For the correct cst value please check the default setupsheet.




**STEP 3**




**STEP 4**

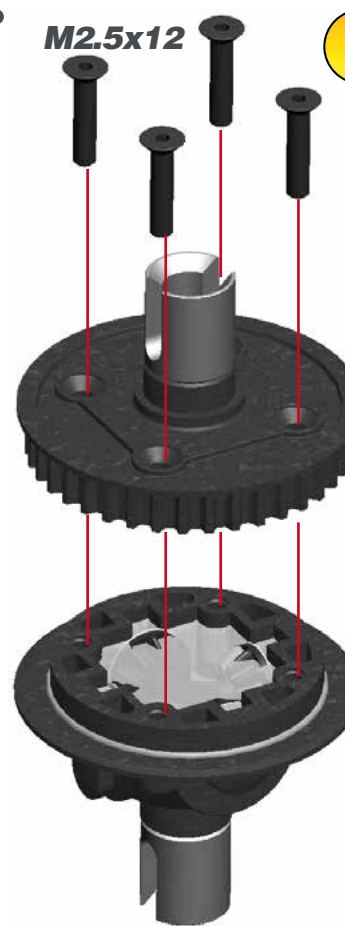
 Fill the differential with silicone oil 1 mm above the crosspin, do NOT overfill. Use the silicone oil supplied in the kit. For the correct cst value please check the default setupsheet.




 **AMOUNT OF OIL IN THE DIFFS**  
 Use a digital scale to measure the exact amount of oil in the diff.  
 Differential weight = 11.4 grams



**STEP 5**



 Do not overtighten the screws. There is always a gap between both sides of the diff housing.

 **COMPLETE DIFF ASSEMBLY**




## STEP 6

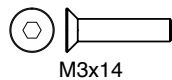
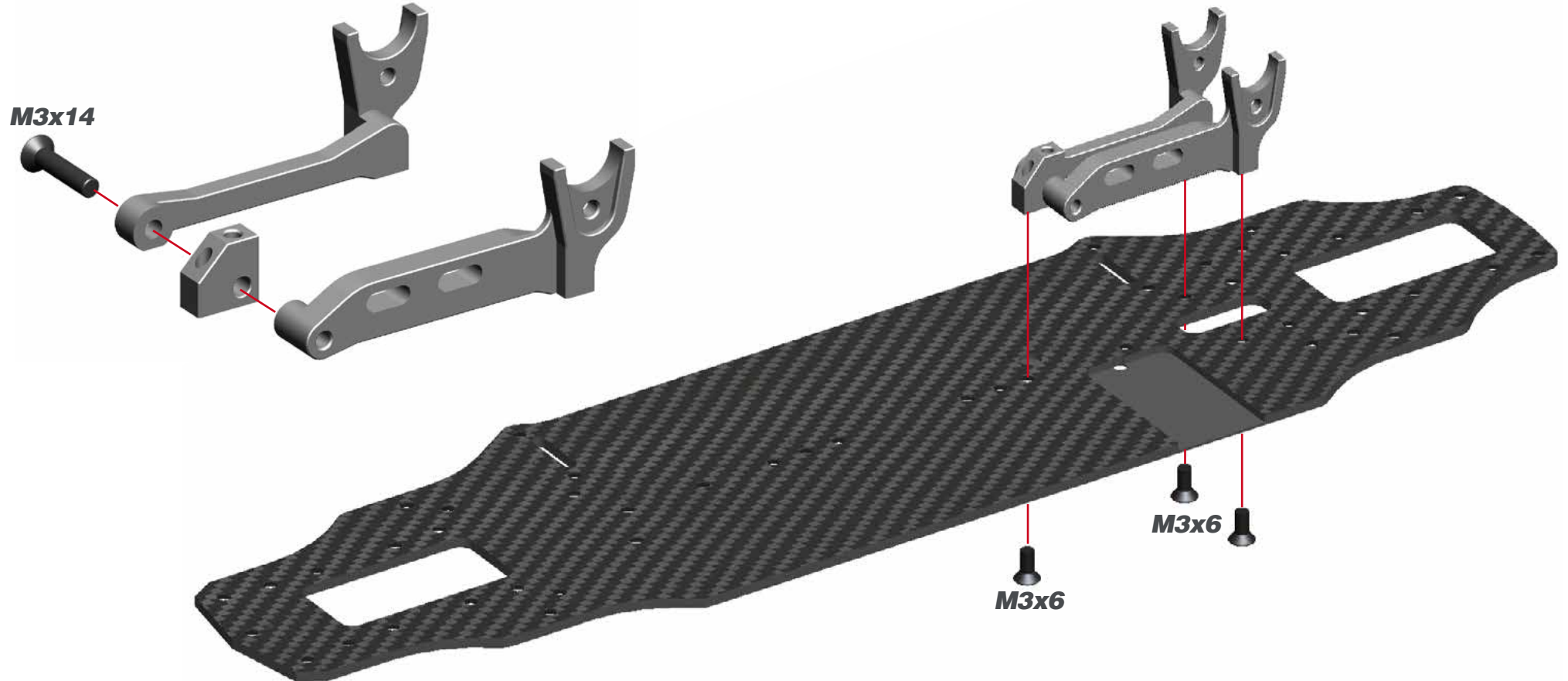
### BAG 1

#### 6.1

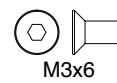
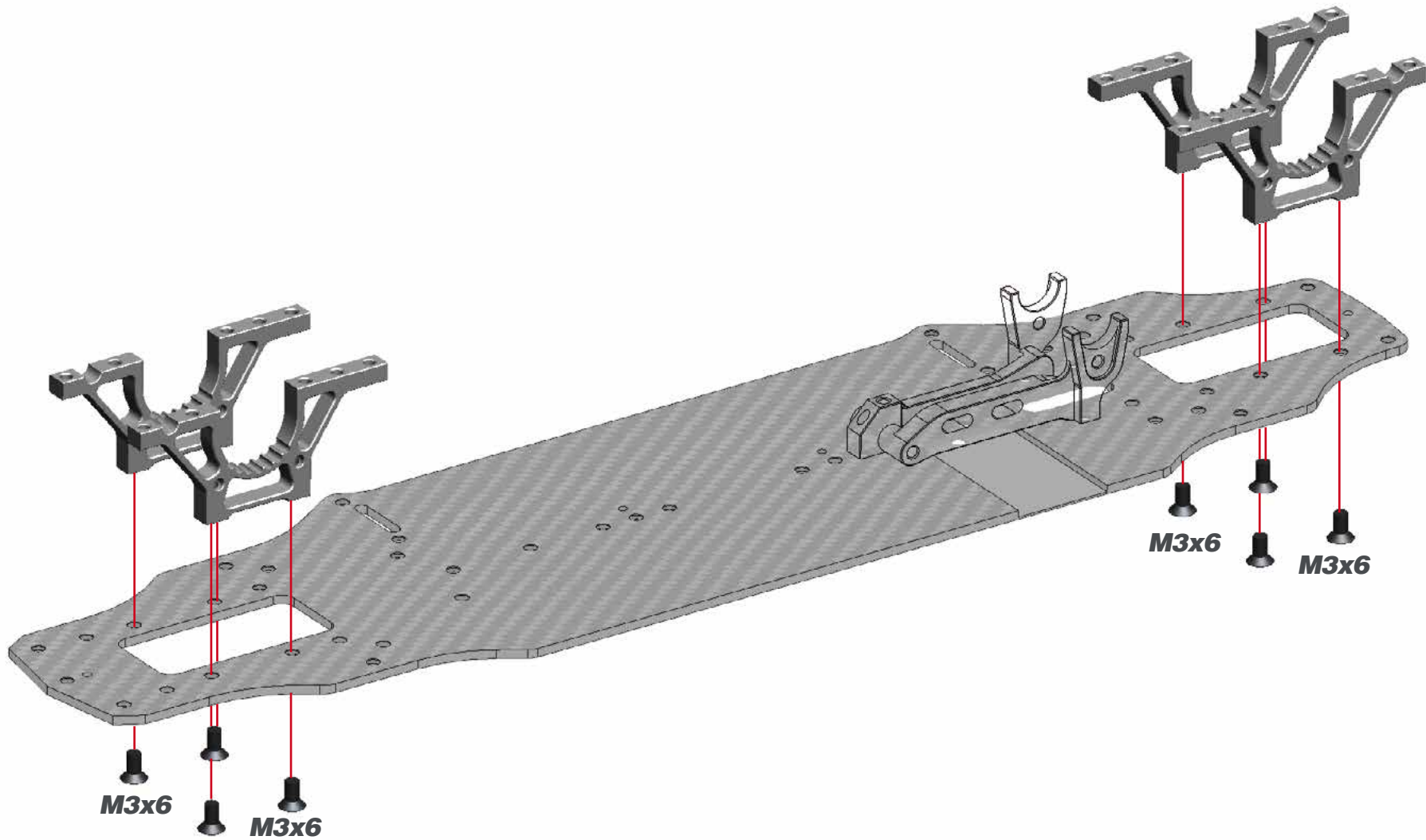
To avoid any tweak in your chassis please follow next instructions:

- 1- Pre-assemble the M3x14 screw in the step 6.1. DO NOT FULLY TIGHTEN IT.
- 2- Fit and fully tight the M3x6 screw in the step 6.2.
- 3- Fully tighten the pre-assembled M3x14 screw.

#### 6.2



**STEP 7**

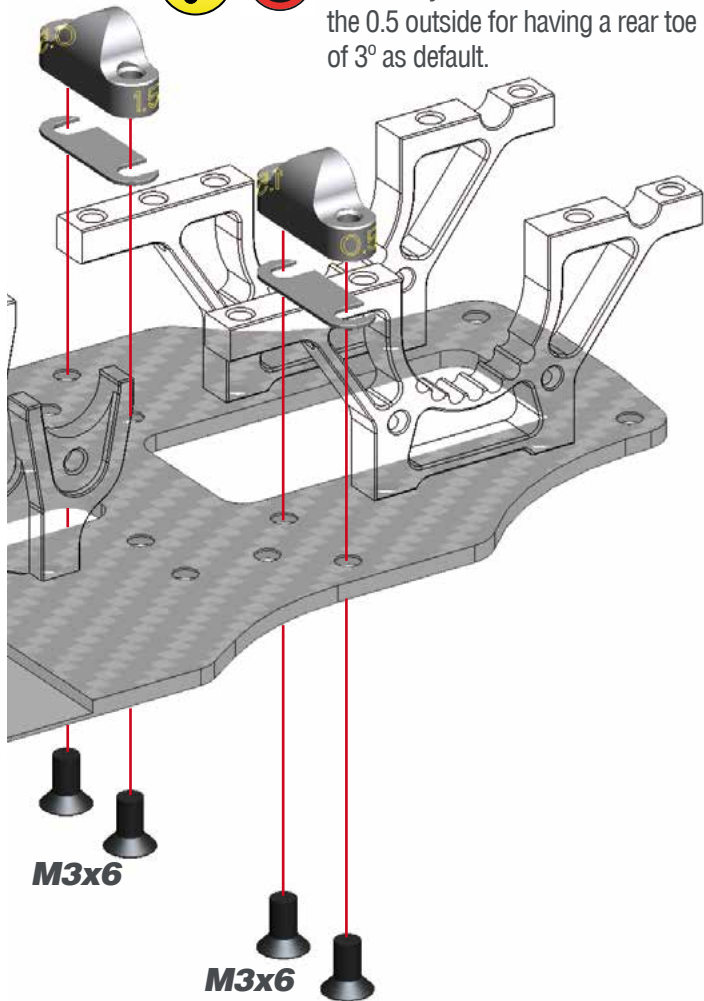


## STEP 8

BAG 2

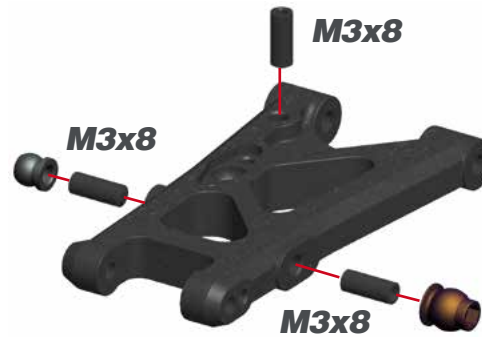


The rear front suspension brackets are not symmetrical. Place them with the 0.5 outside for having a rear toe in of 3° as default.

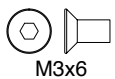
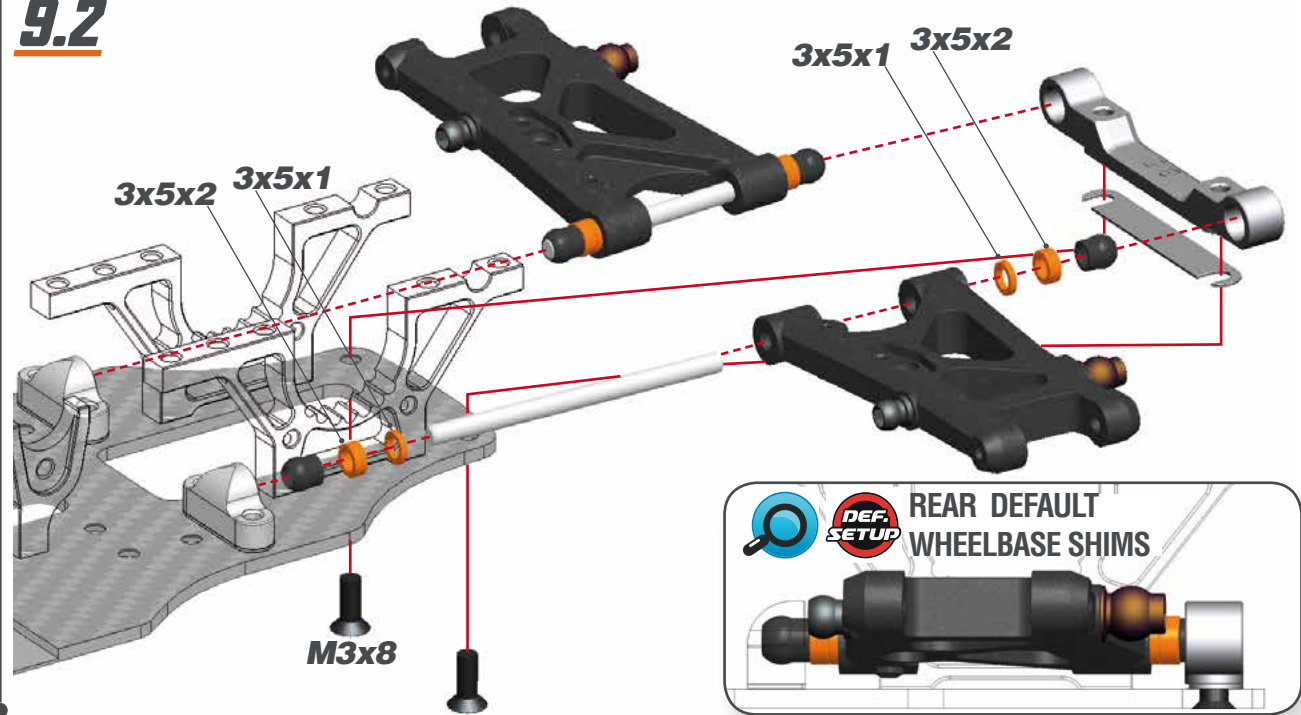


## STEP 9

### 9.1

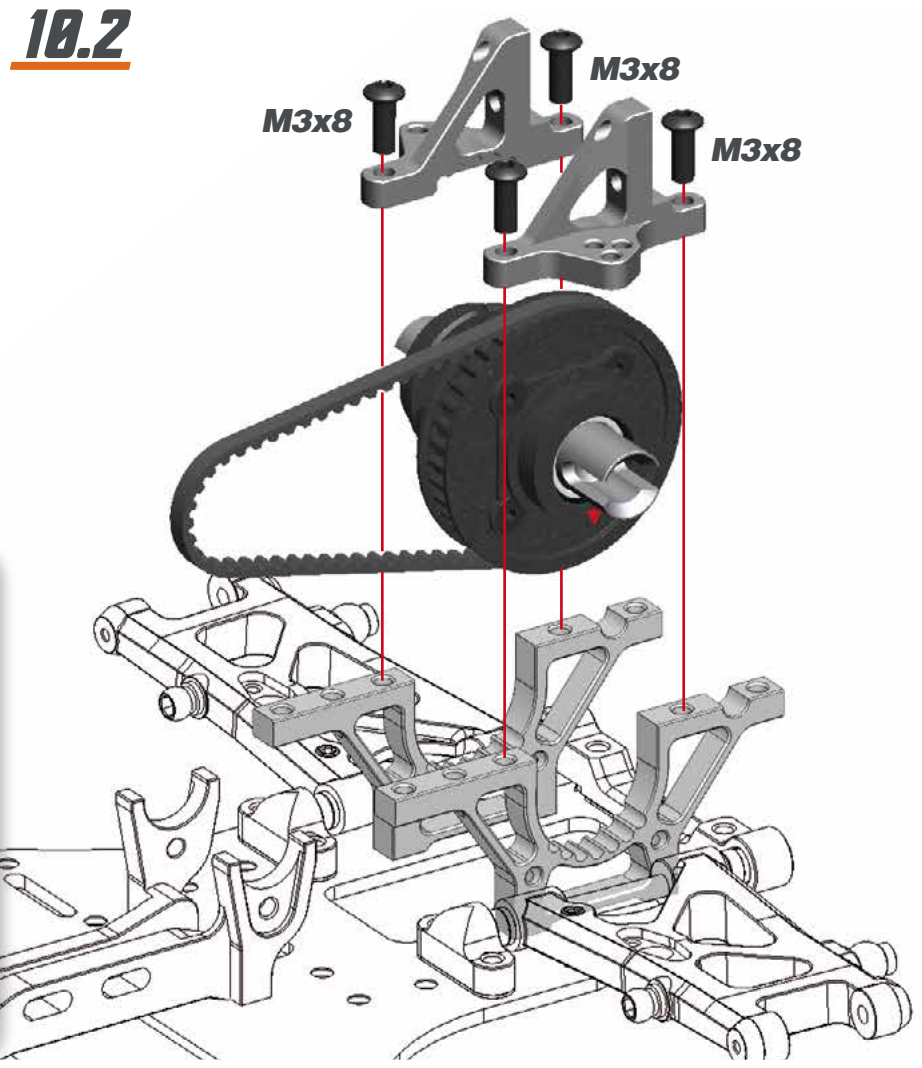
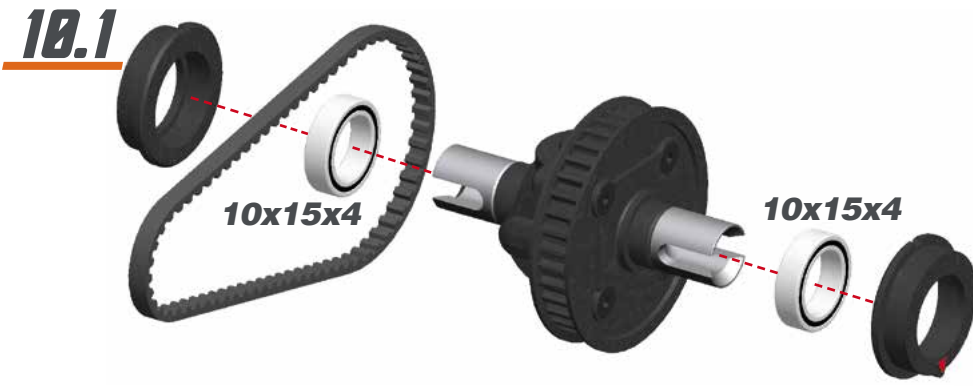



### 9.2

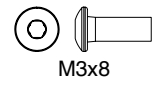
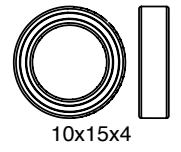




**STEP 10**

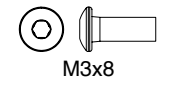
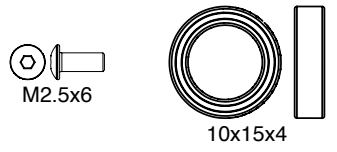
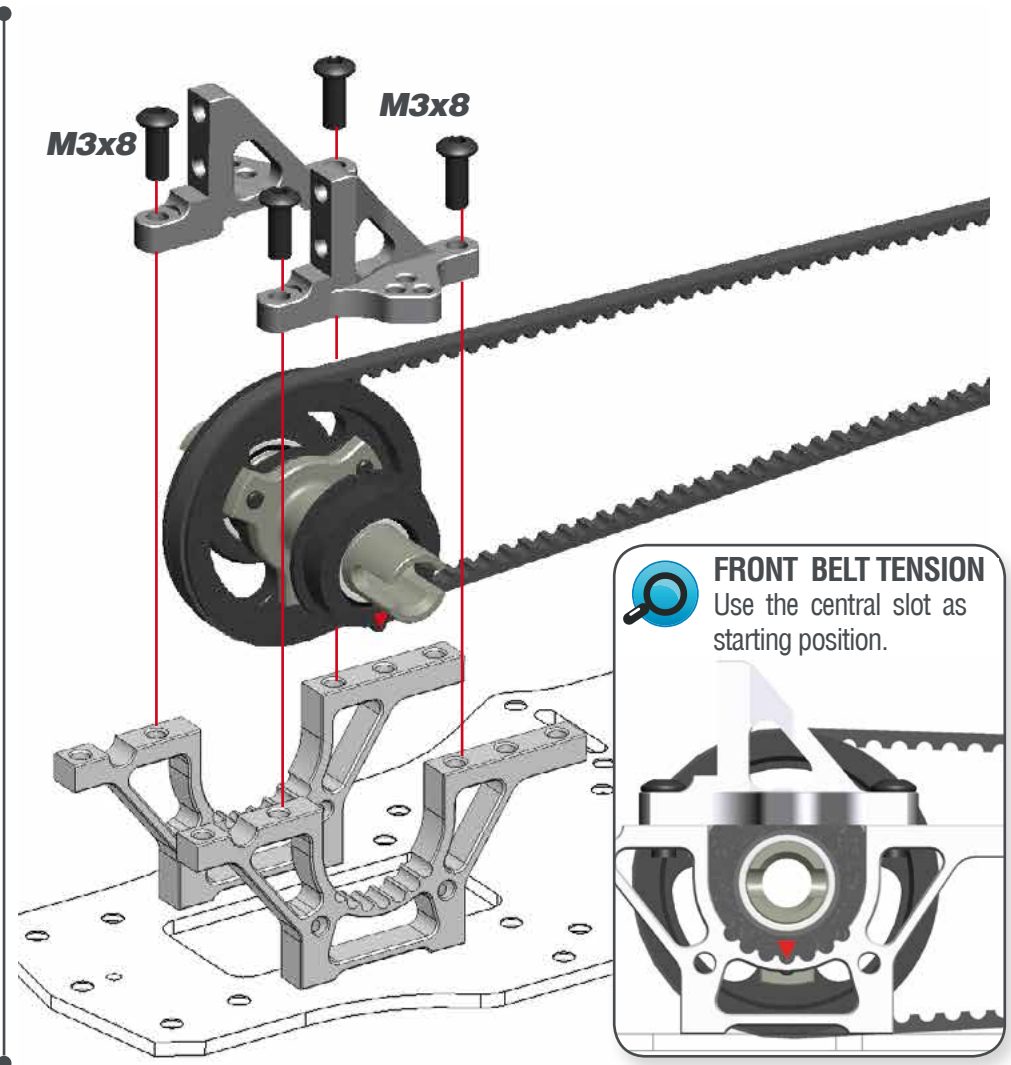
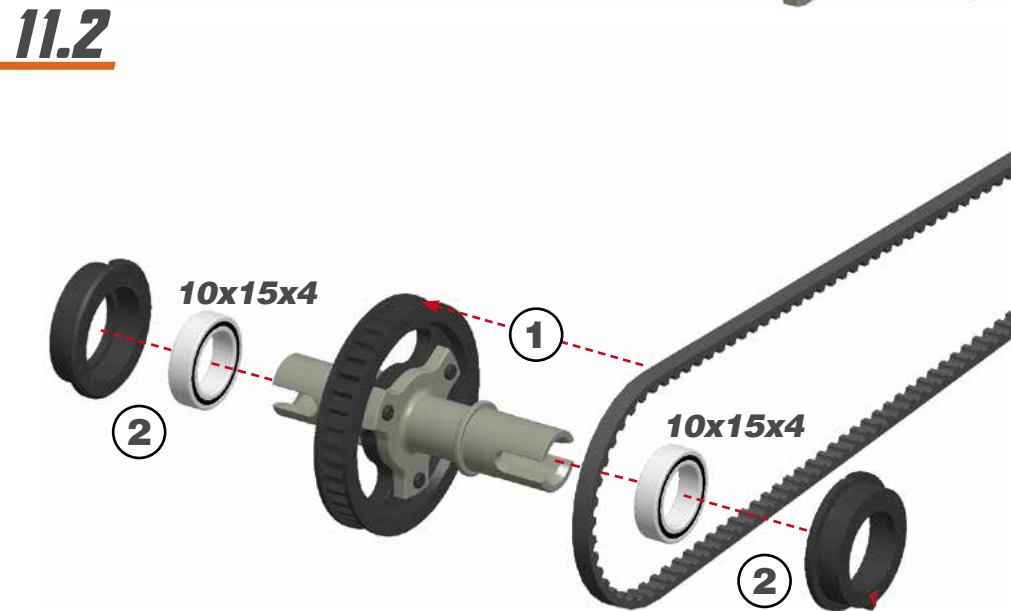
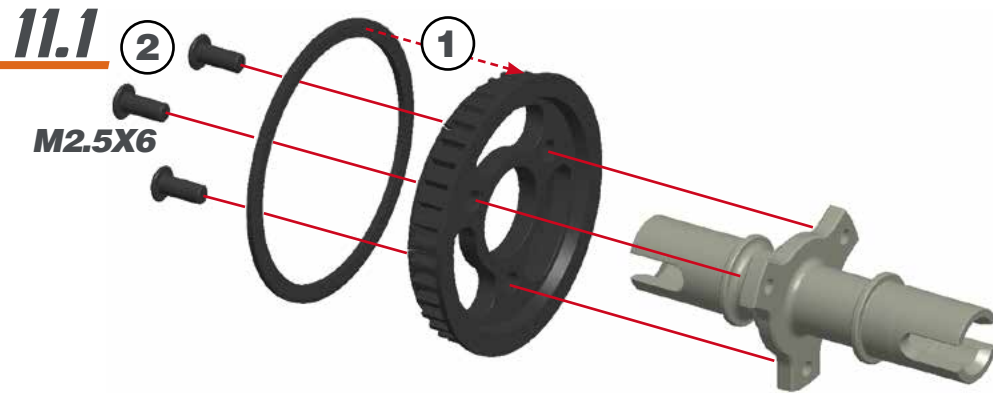


 **REAR BELT TENSION**  
Use the central slot as starting position.



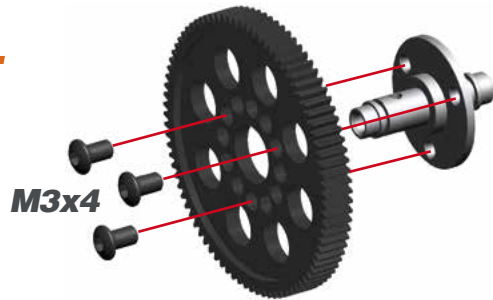
## STEP 11 **BAG 3**

## STEP 12

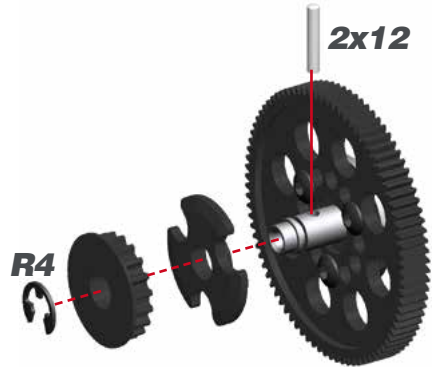


**STEP 13**

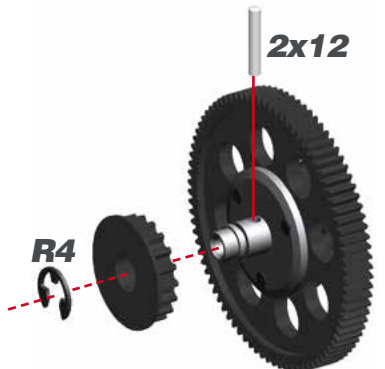
**13.1**



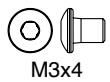
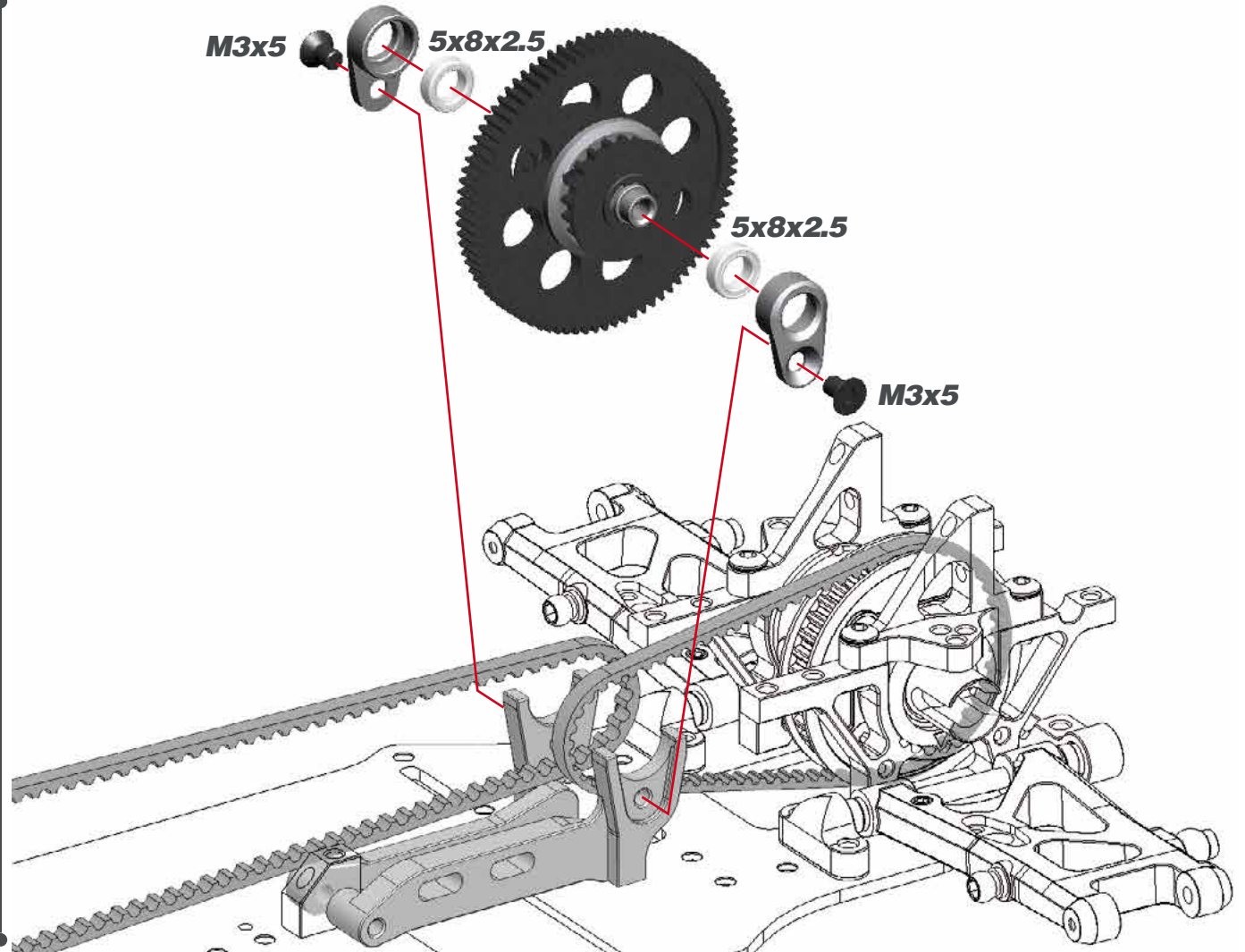
**13.2**



**13.3**



**STEP 14**



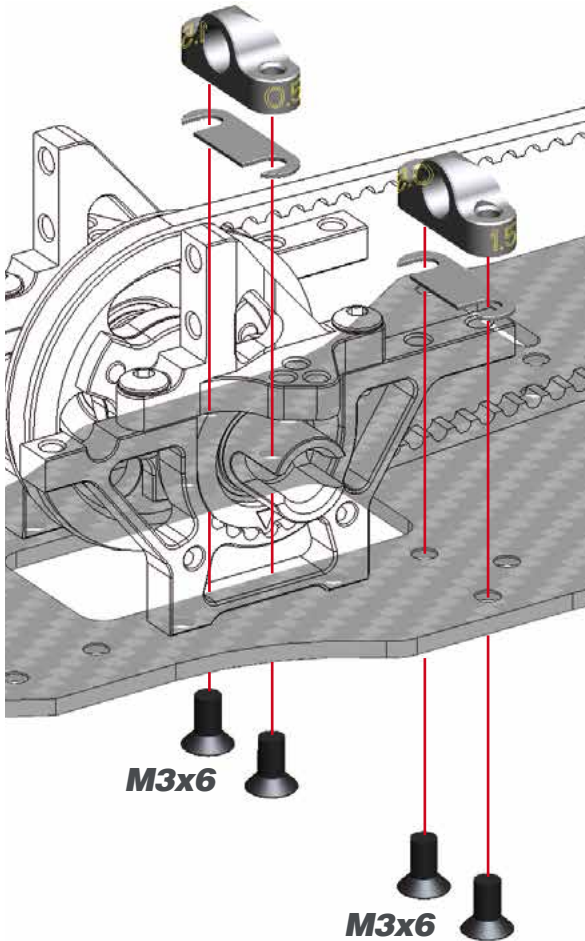
**STEP 15** **BAG 4**

**STEP 16**



**DEF. SETUP**

The front rear suspension brackets are not symmetrical. Place them with the 1.5 outside.



M3x6

M3x6

**16.1**



M2.5x6

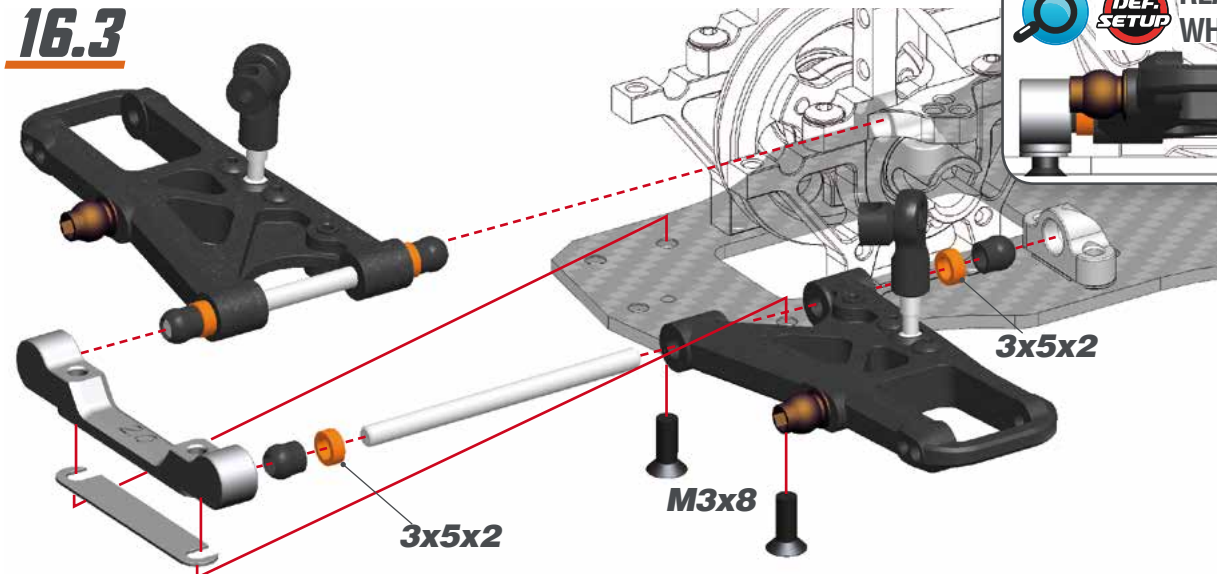
M3x8

M3x8

**16.2**



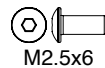
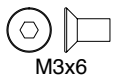
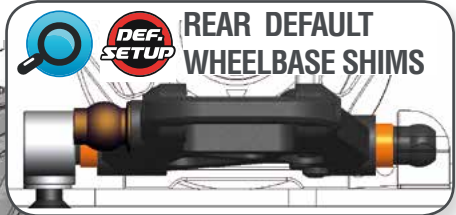
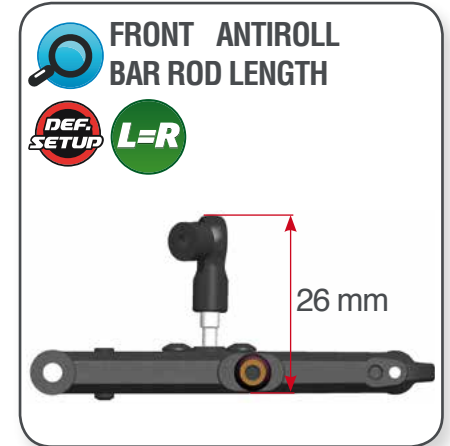
**16.3**



3x5x2

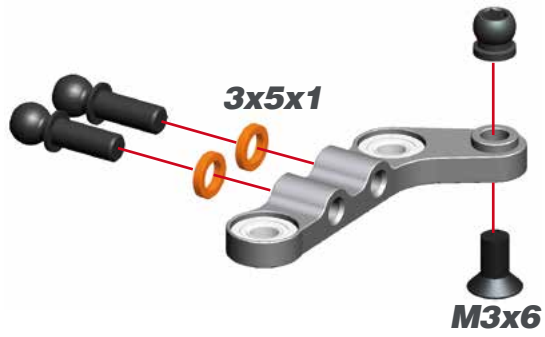
M3x8

3x5x2

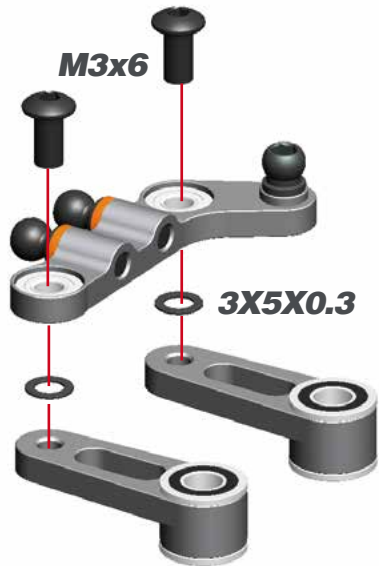


## STEP 17 **BAG 5**

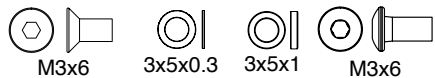
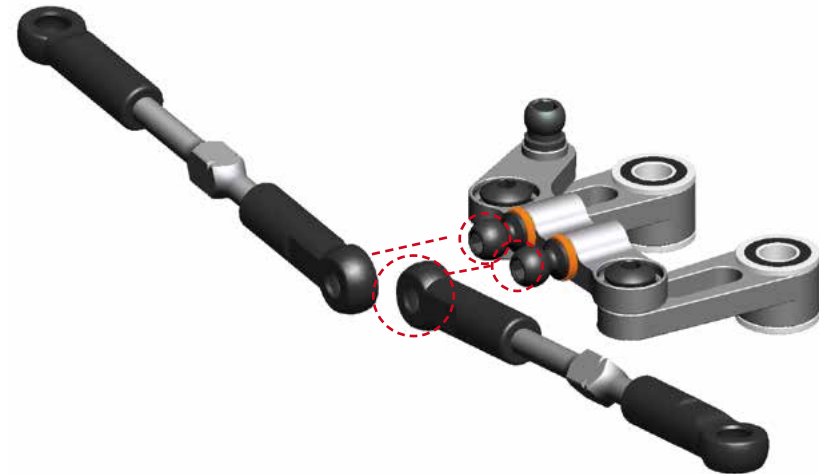
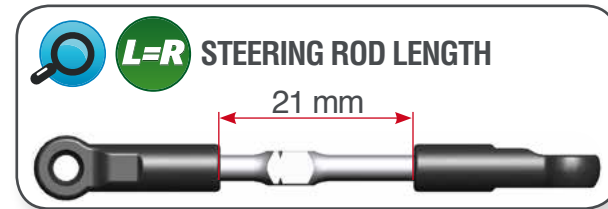
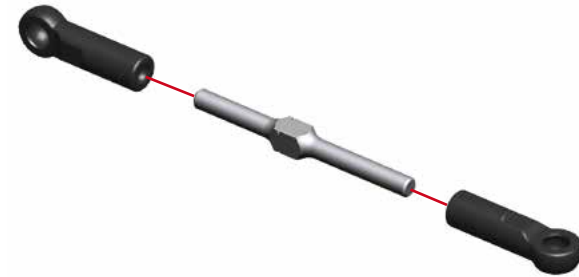
17.1



17.1

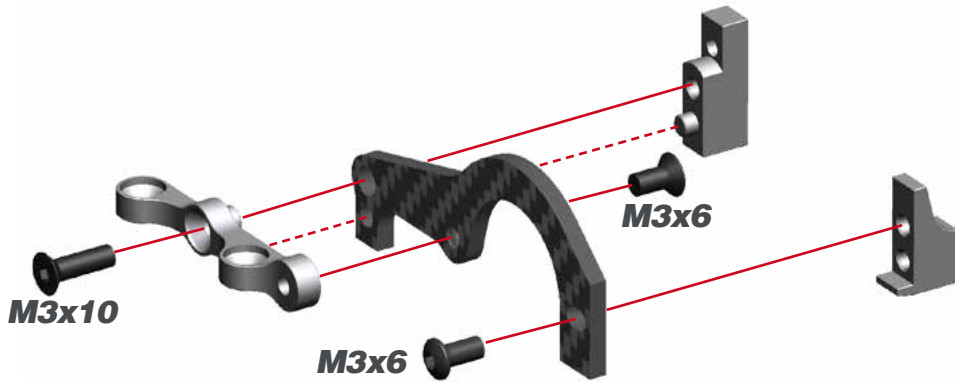


## STEP 18




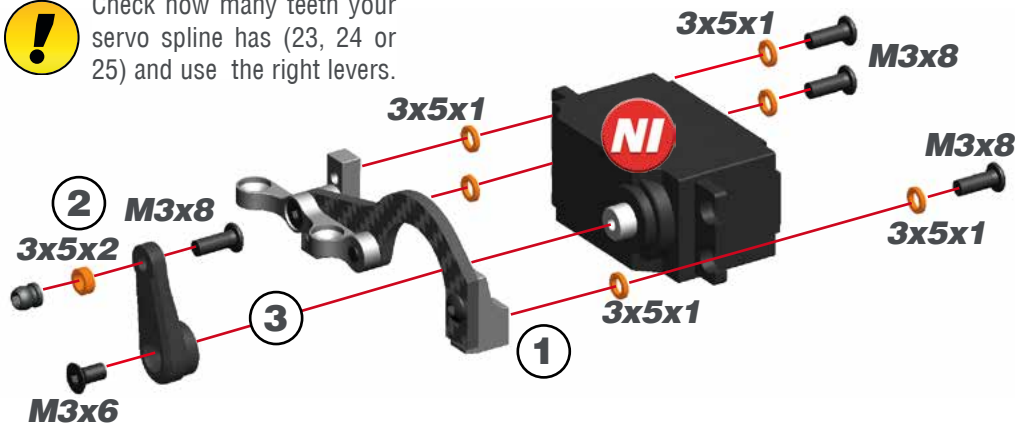
**STEP 19**

**19.1**

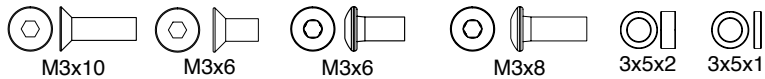
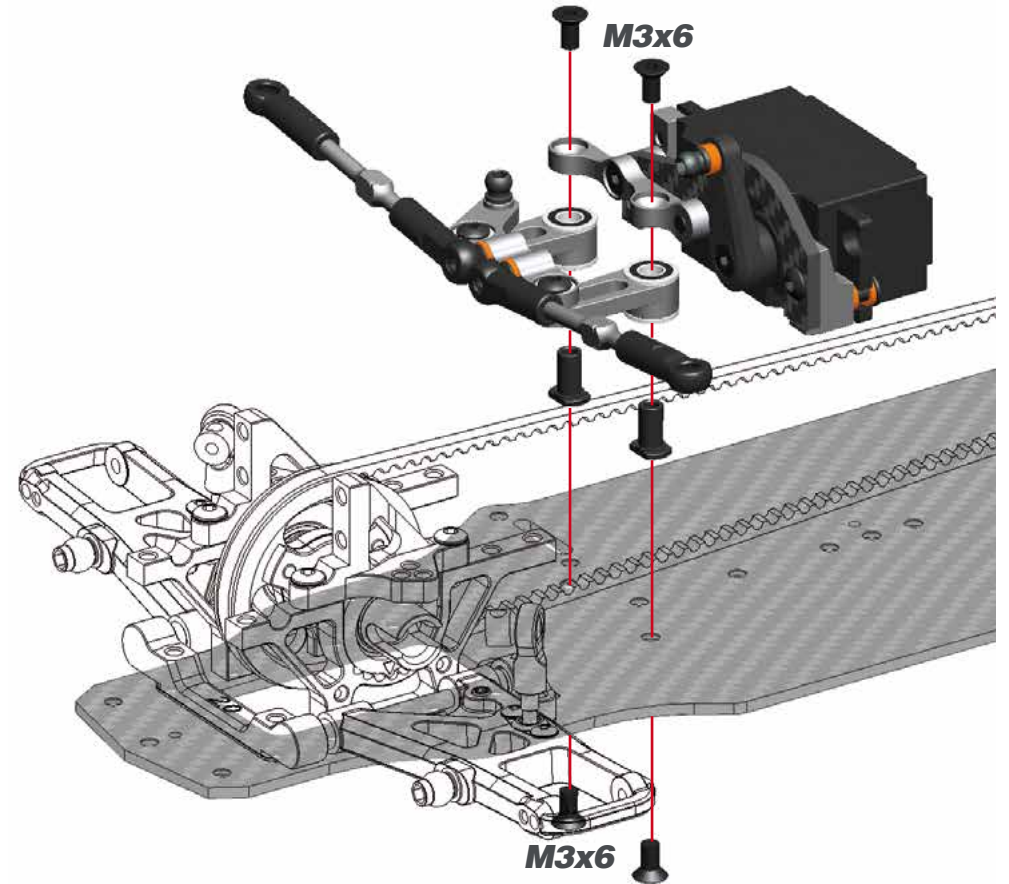


**19.2**

 Check how many teeth your servo spline has (23, 24 or 25) and use the right levers.

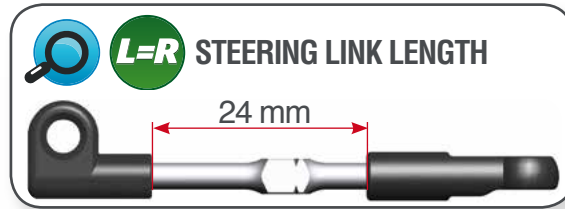
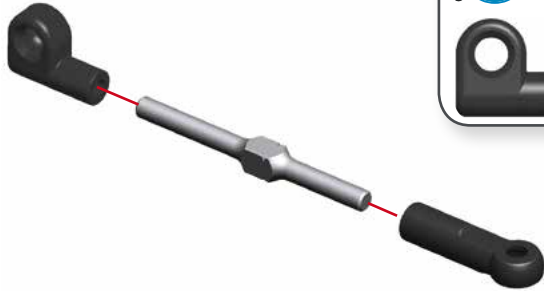


**STEP 20**

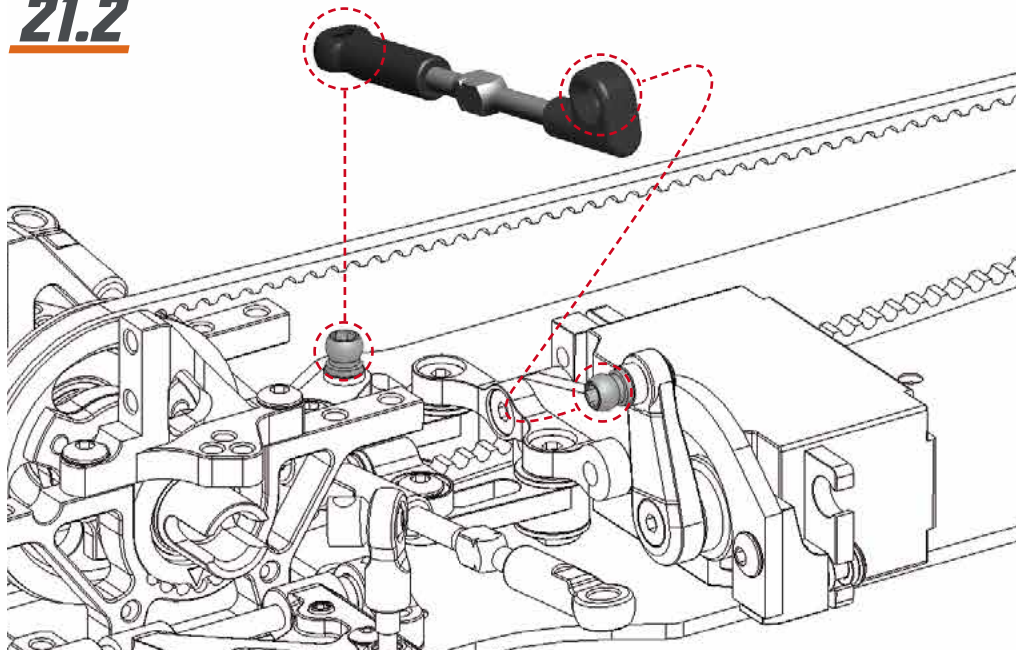


## STEP 21

**21.1**

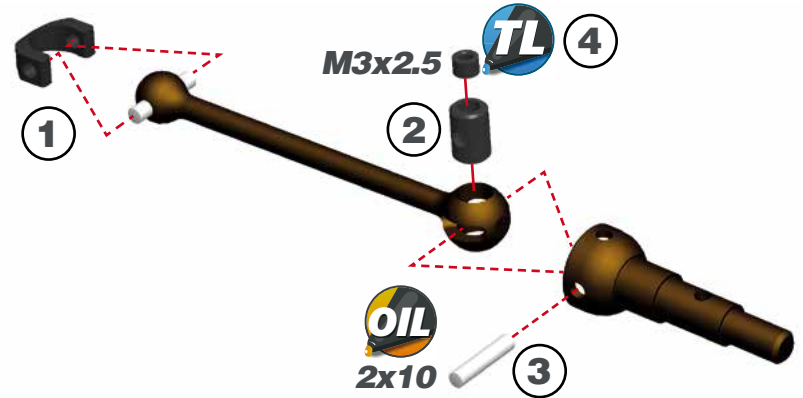


**21.2**

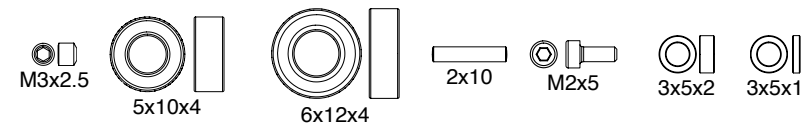
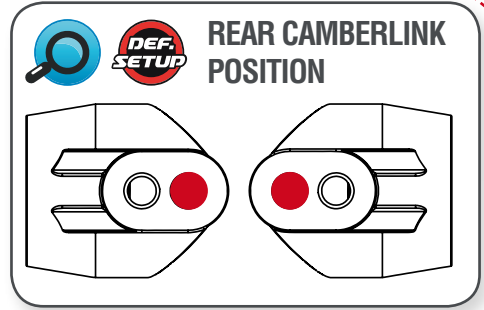
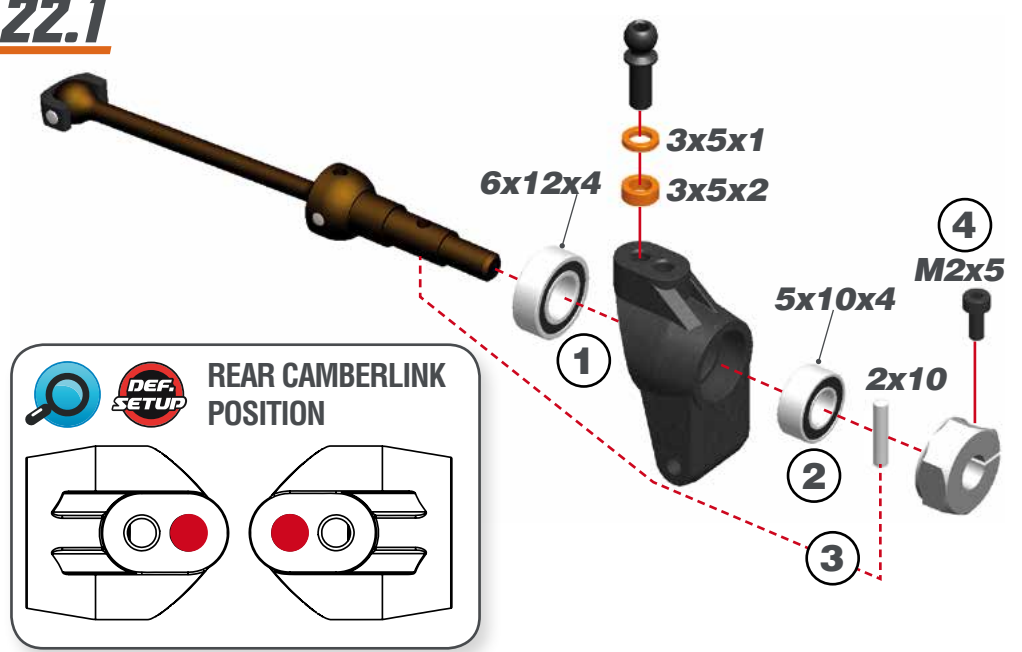


## STEP 22 **BAG 6**

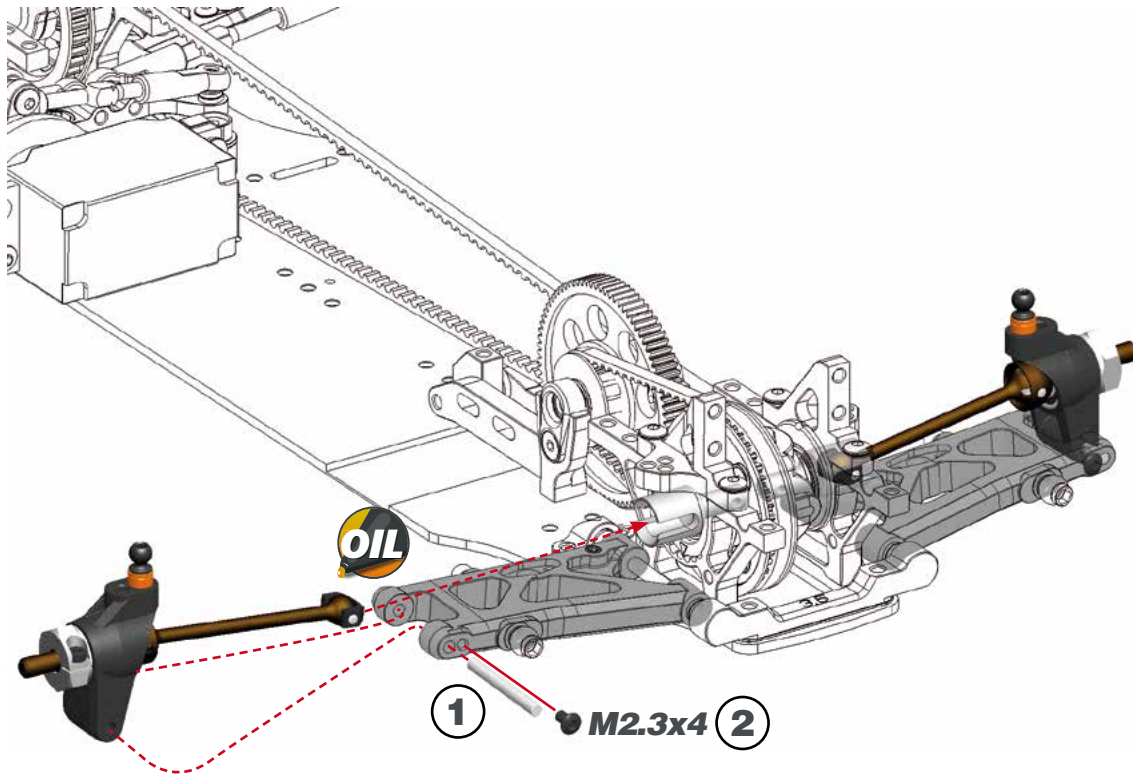
**22.1**



**22.1**

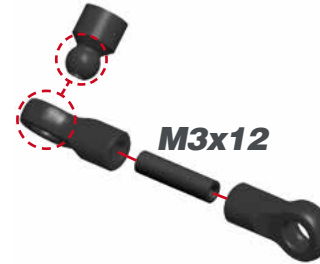


**STEP 23**

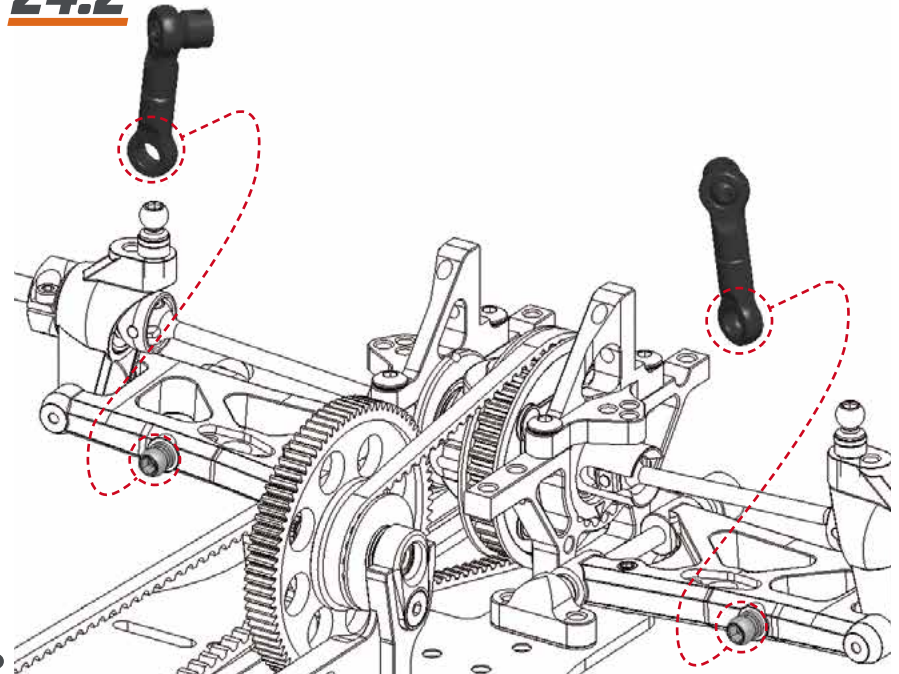


**STEP 24**

**24.1**




**24.2**




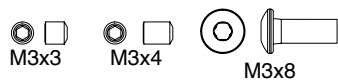
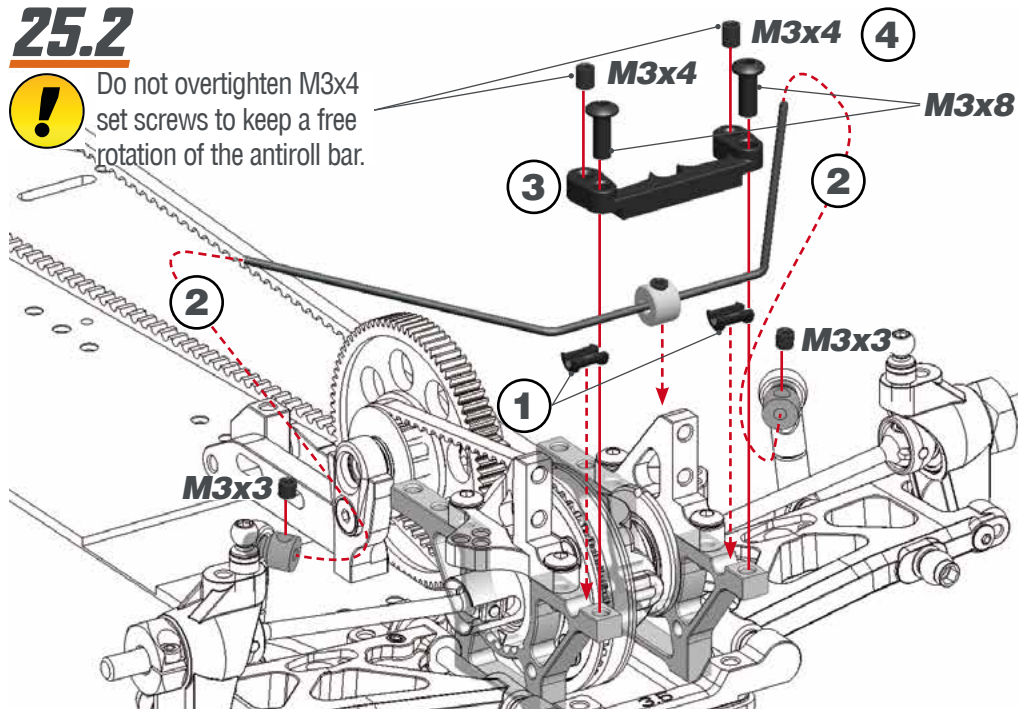


## STEP 25

**25.1**  Do not fully tighten M3x3 set screw till the anti-roll bar will be assembled and correctly placed in step 25.2.

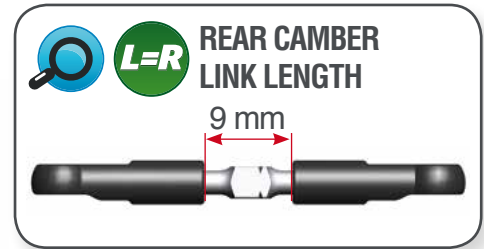
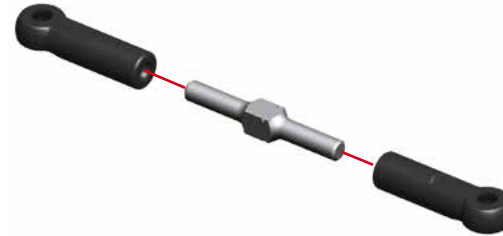


**25.2**  Do not overtighten M3x4 set screws to keep a free rotation of the antiroll bar.

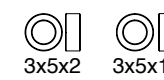
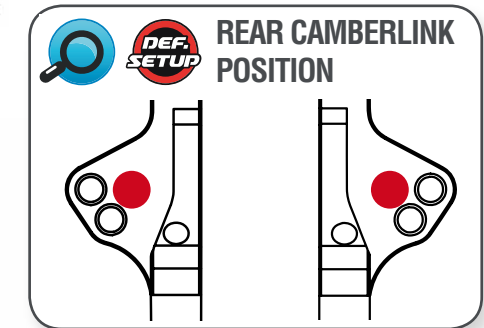
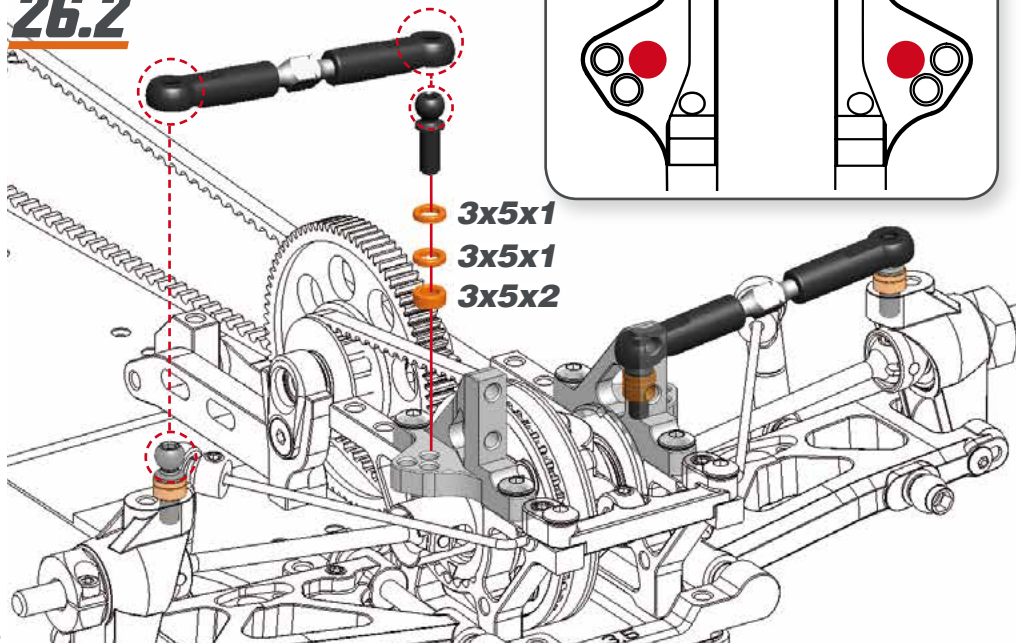


## STEP 26

**26.1**

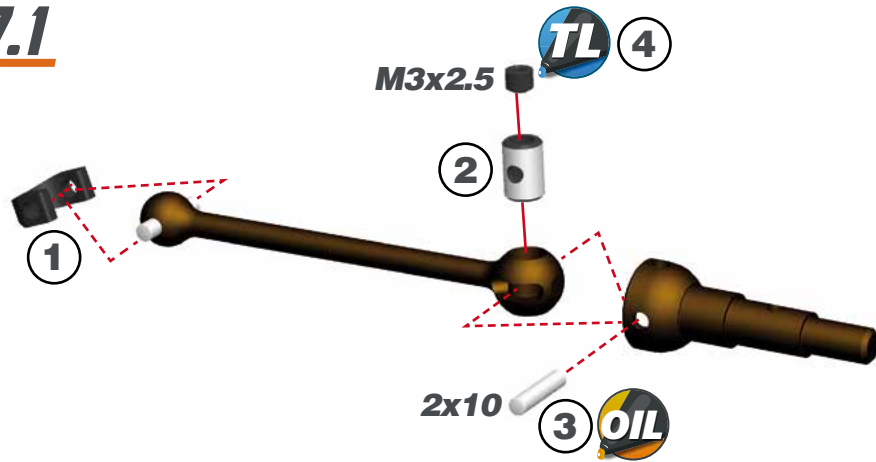


**26.2**

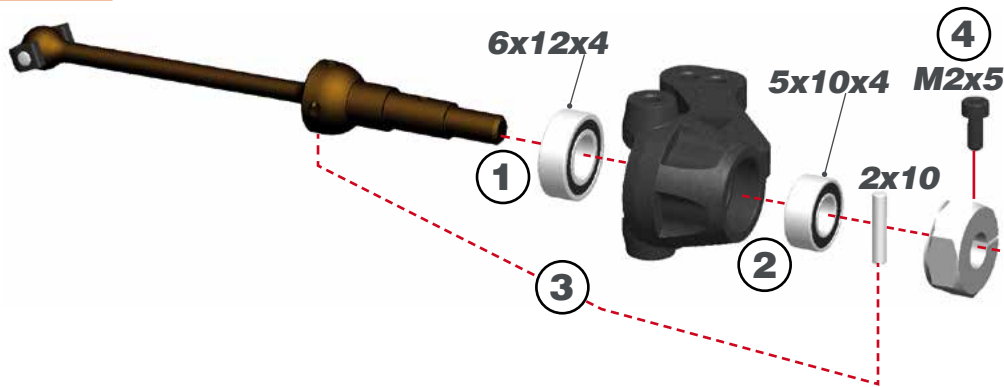


## STEP 27 BAG 7

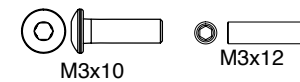
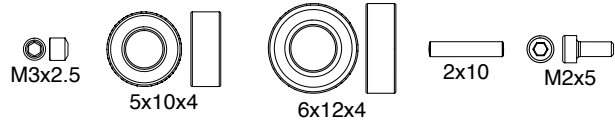
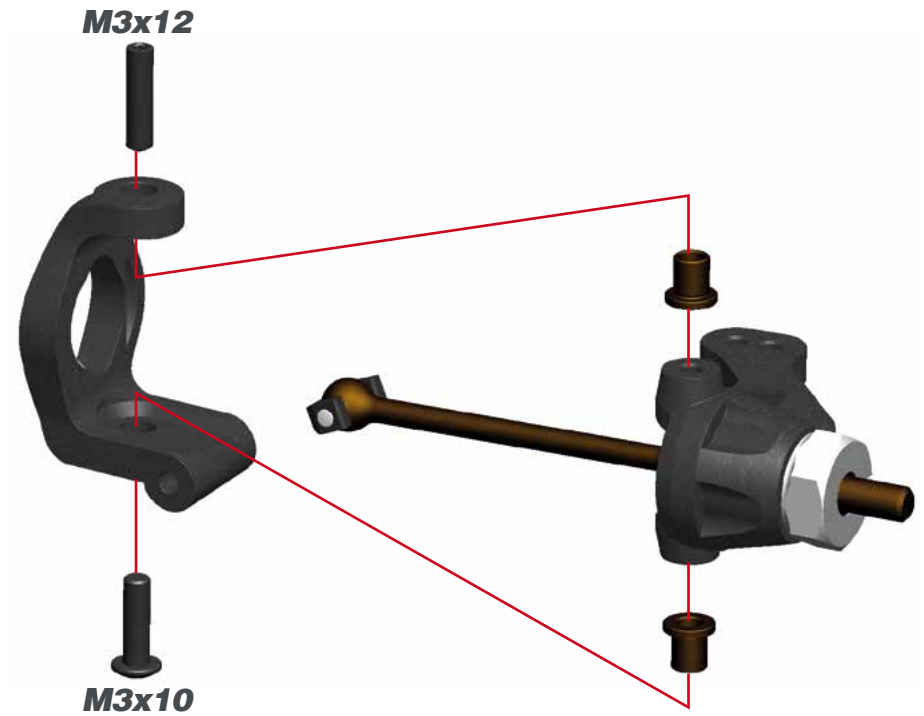
### 27.1



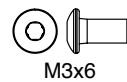
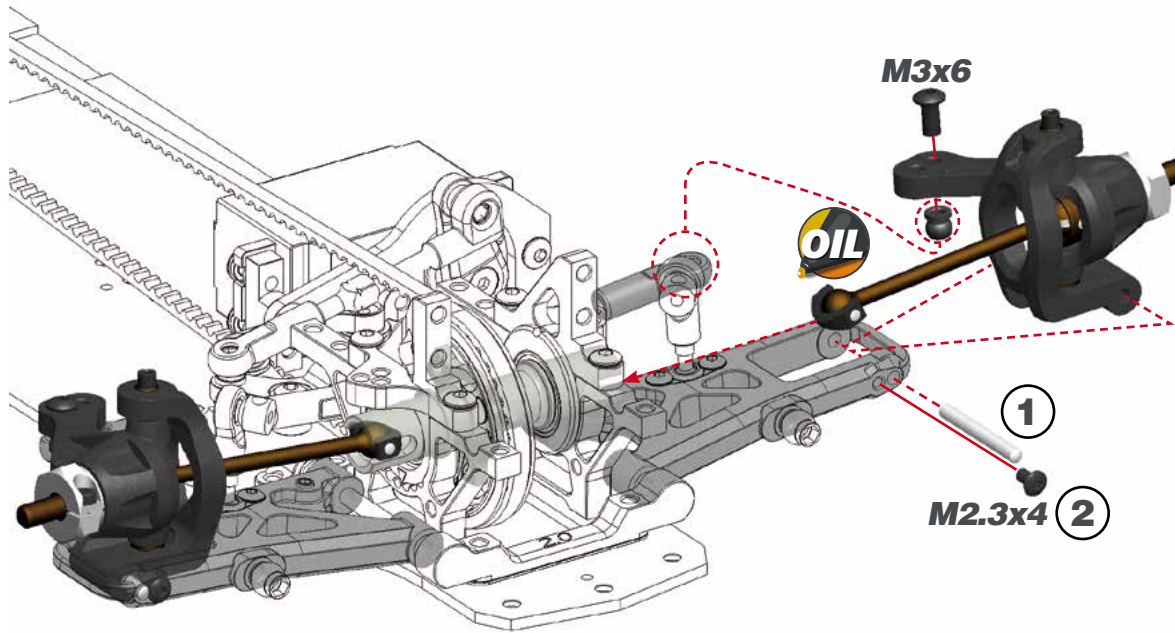
### 27.2



## STEP 28



**STEP 29**

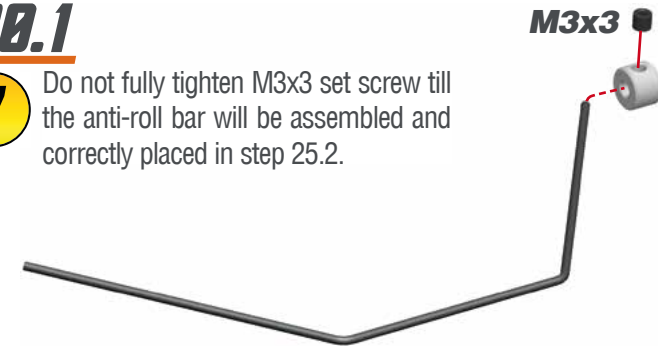


**STEP 30**

**30.1**



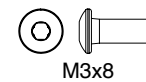
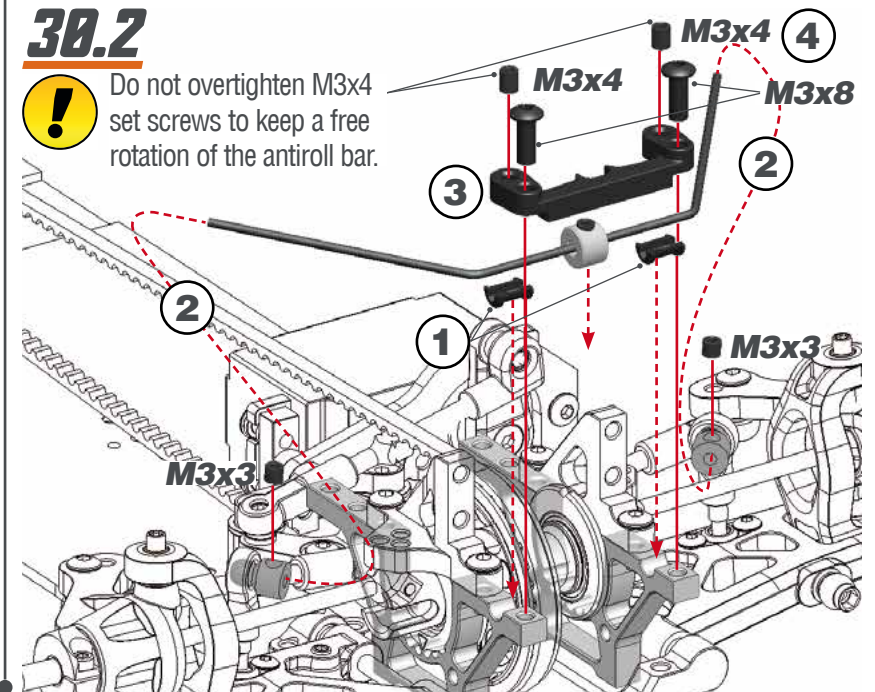
Do not fully tighten M3x3 set screw till the anti-roll bar will be assembled and correctly placed in step 25.2.



**30.2**

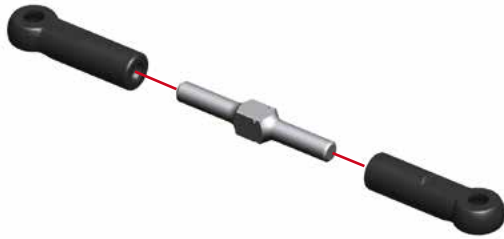



Do not overtighten M3x4 set screws to keep a free rotation of the antiroll bar.




**STEP 31**

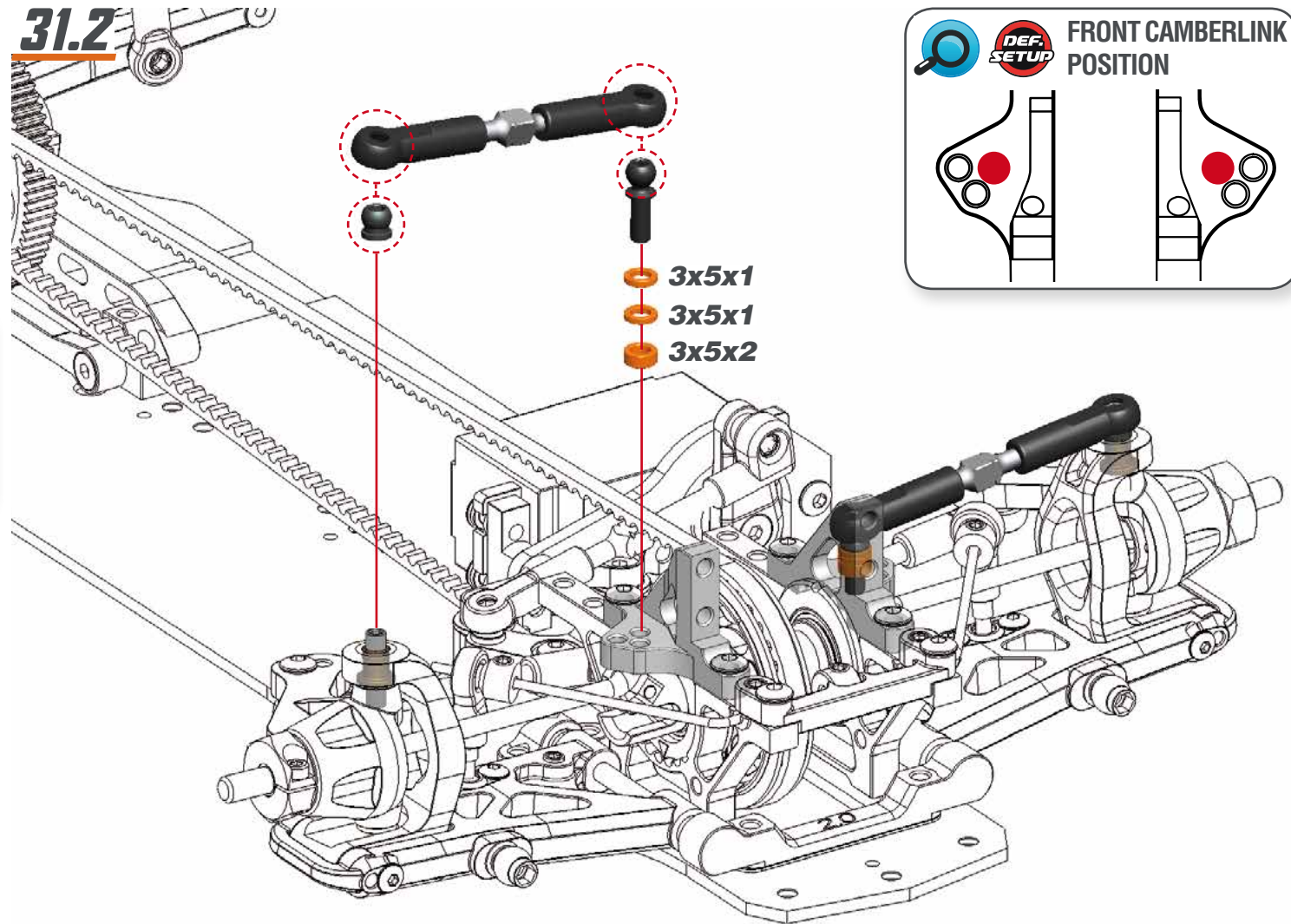
**31.1**





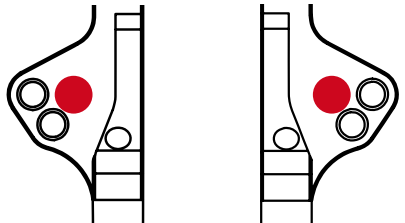
 **L=R** REAR CAMBER LINK LENGTH  
11 mm





**31.2**



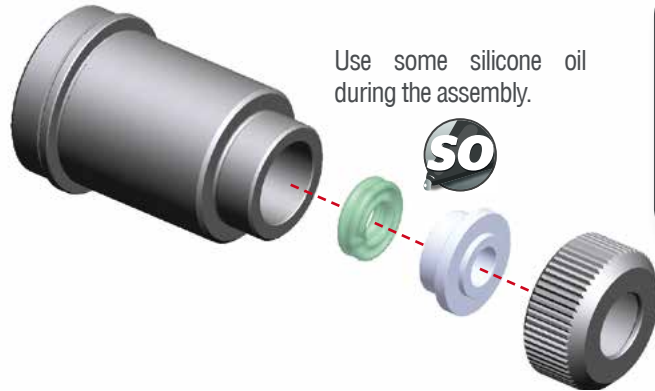
  FRONT CAMBERLINK POSITION



 3x5x2     3x5x1

## STEP 32 SHOCKS BAG

### 32.1

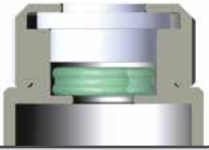


Use some silicone oil during the assembly.

SO



Note the correct orientation of the shock spacers.



### 32.2



1 Insert the o-ring inside the spring collar.

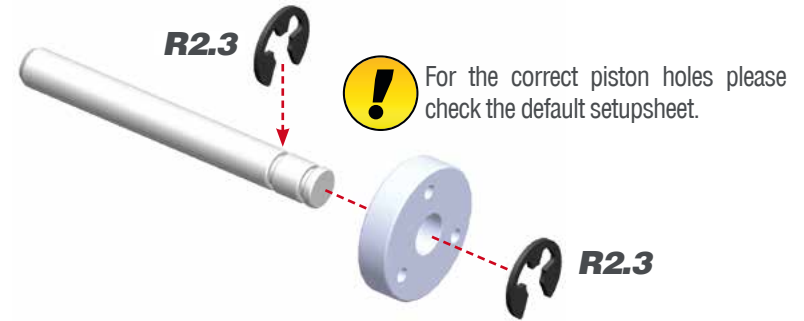


Note the correct position of the o-ring.



## STEP 33

### 33.1



R2.3



For the correct piston holes please check the default setup sheet.

R2.3

### 33.2



SO

Use some silicone oil during the assembly.



R2.3

## STEP 34

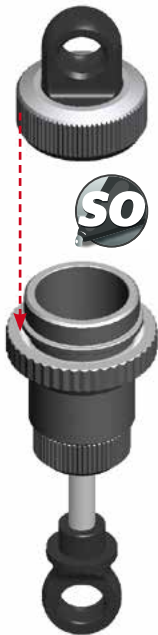
### 34.1

Push the shock top and the membrane into the shock cap.



### 34.2

1- Fill up with silicone oil fully using the silicone oil supplied in the kit. For the correct cst value please check the default setupsheet.



2- Extend the shockrod fully

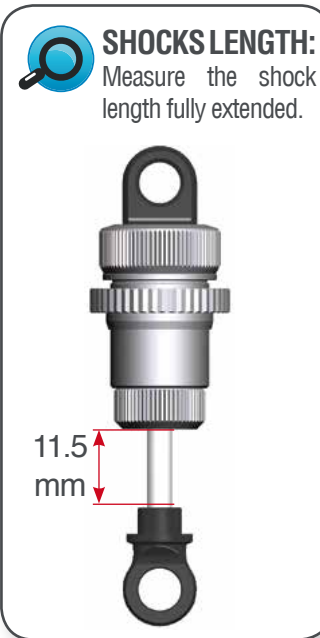
3- Move the shockrod slowly up and down to let ALL air bubbles escape.

4- Close top only 3/4.

### 34.3

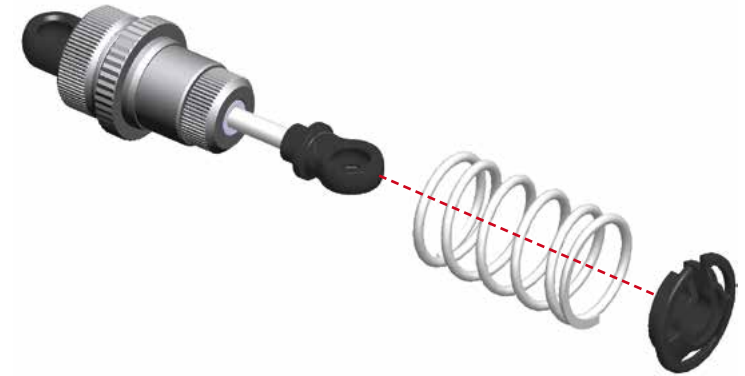
1-Bleed: push the shockrod all the way in slowly, to allow excessive oil to escape.

2- Close the shock cap completely.

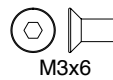
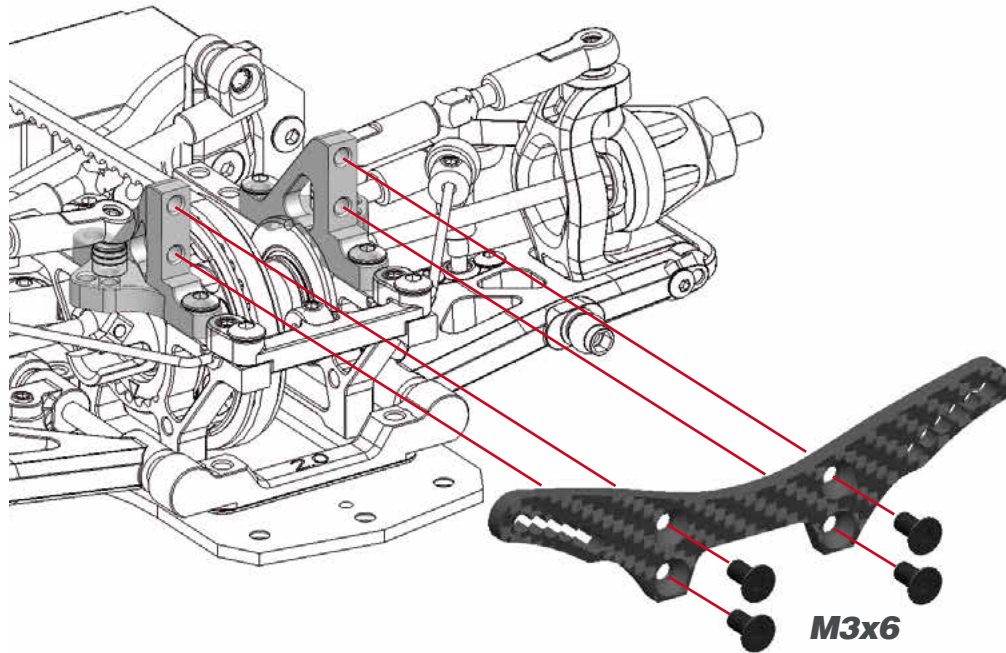


## STEP 35

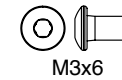
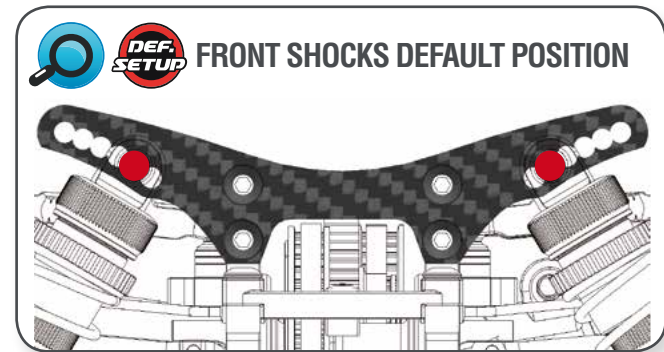
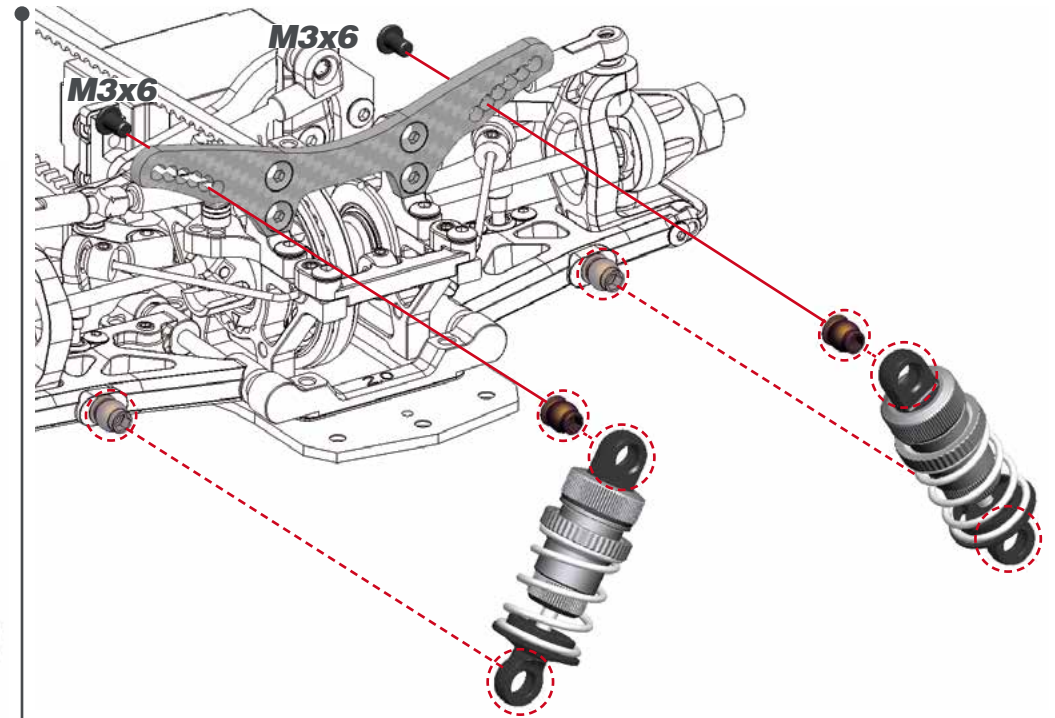
Assemble the spring and spring-cup (align correctly) to complete the shock.



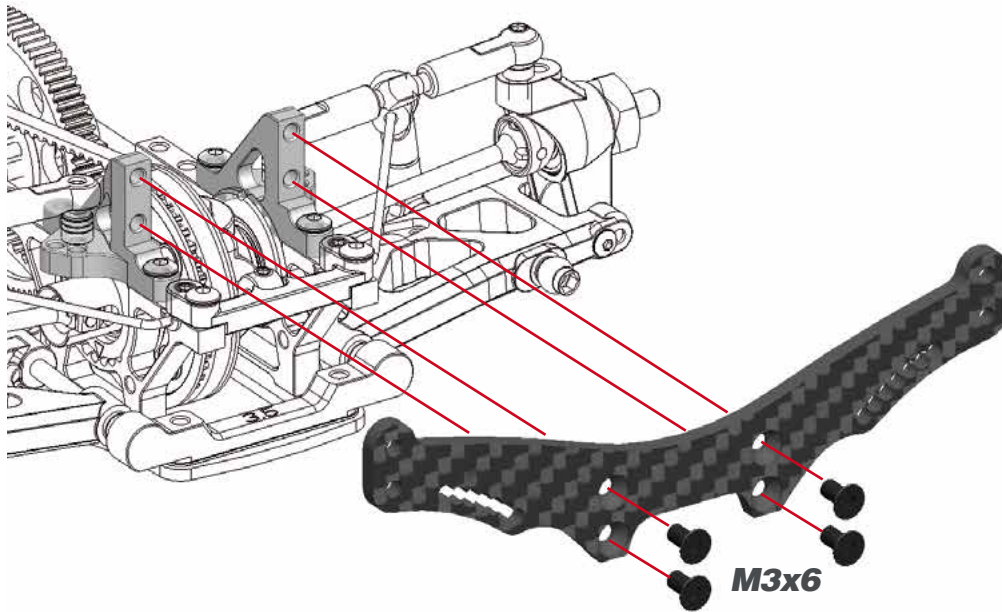
**STEP 36** **BAG 8**



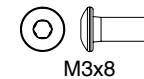
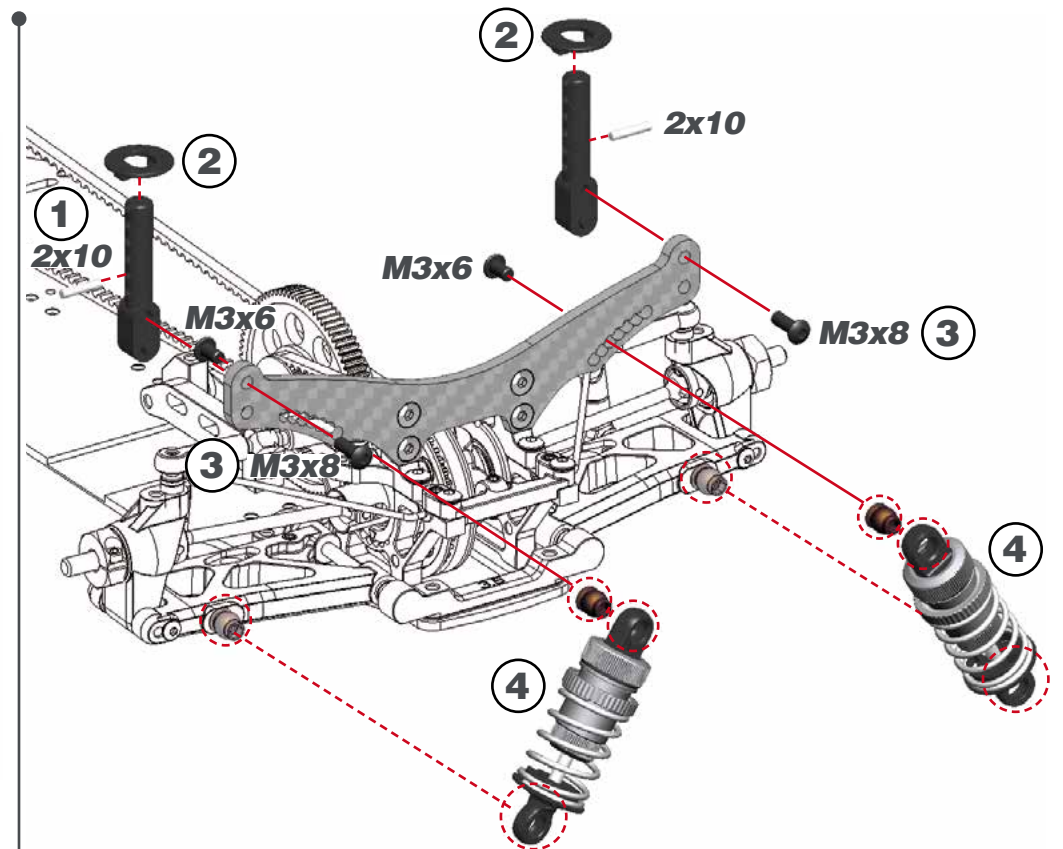
**STEP 37**



**STEP 38**

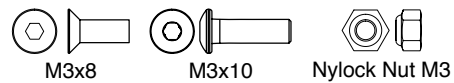
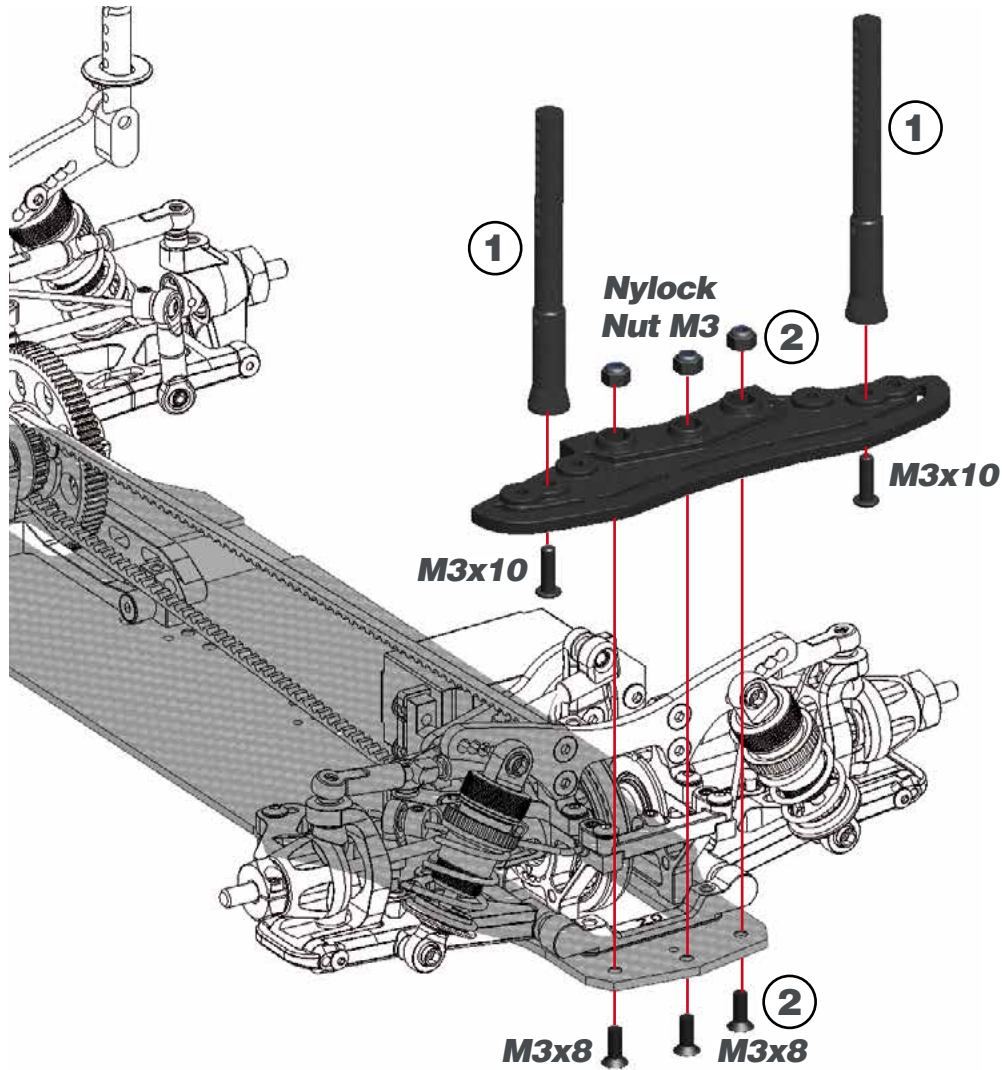


**STEP 39**

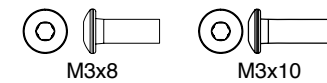
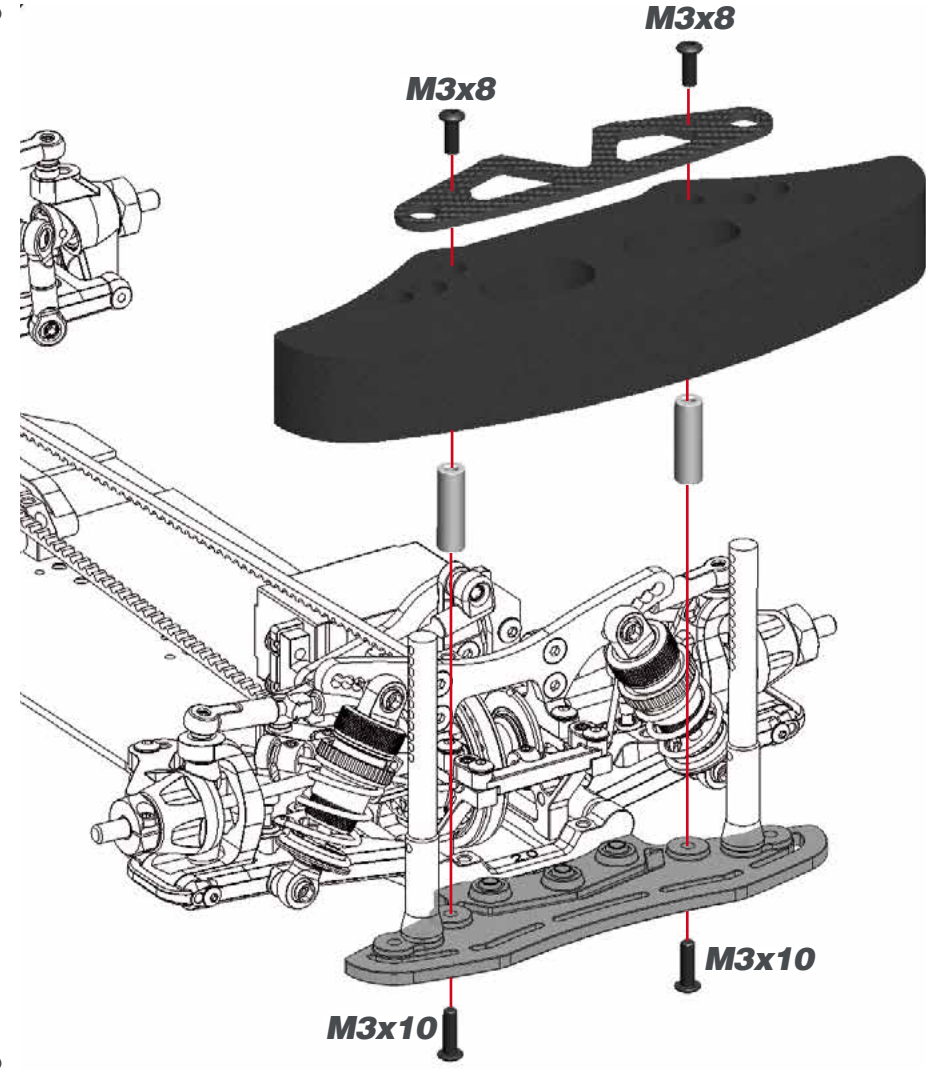




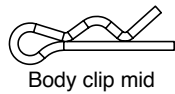
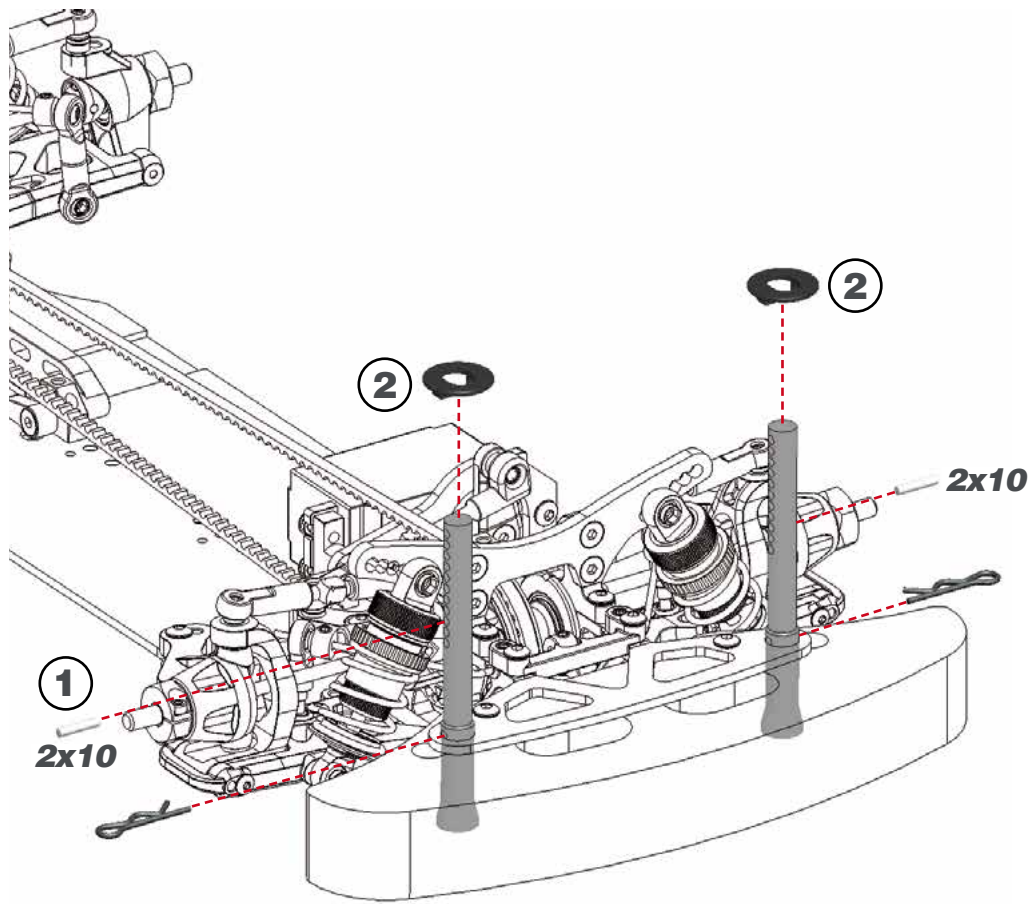
## STEP 40



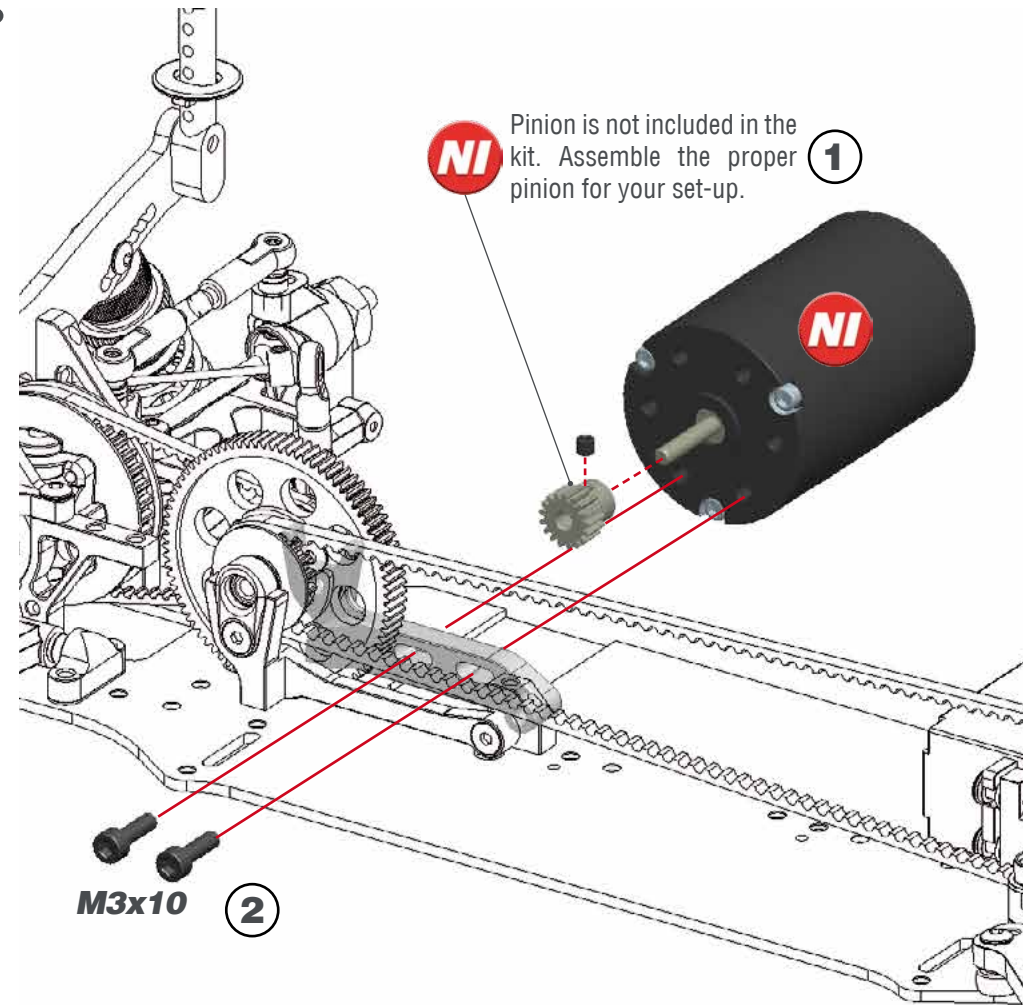
## STEP 41



**STEP 42**



**STEP 43** **BAG 9**

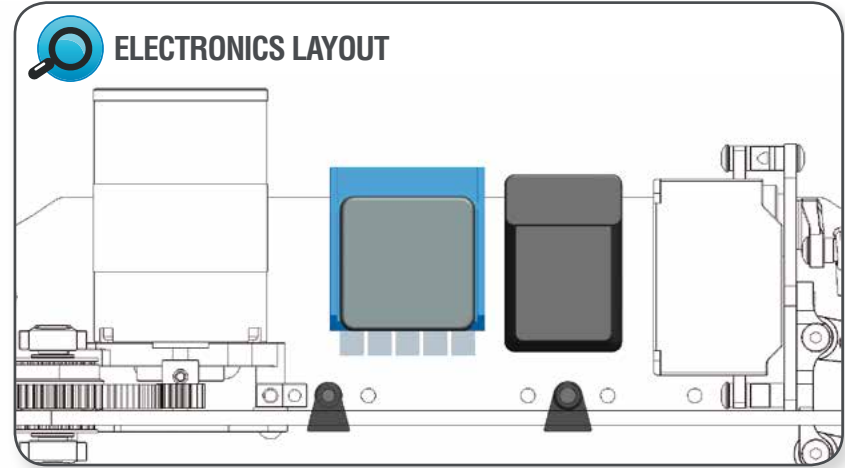
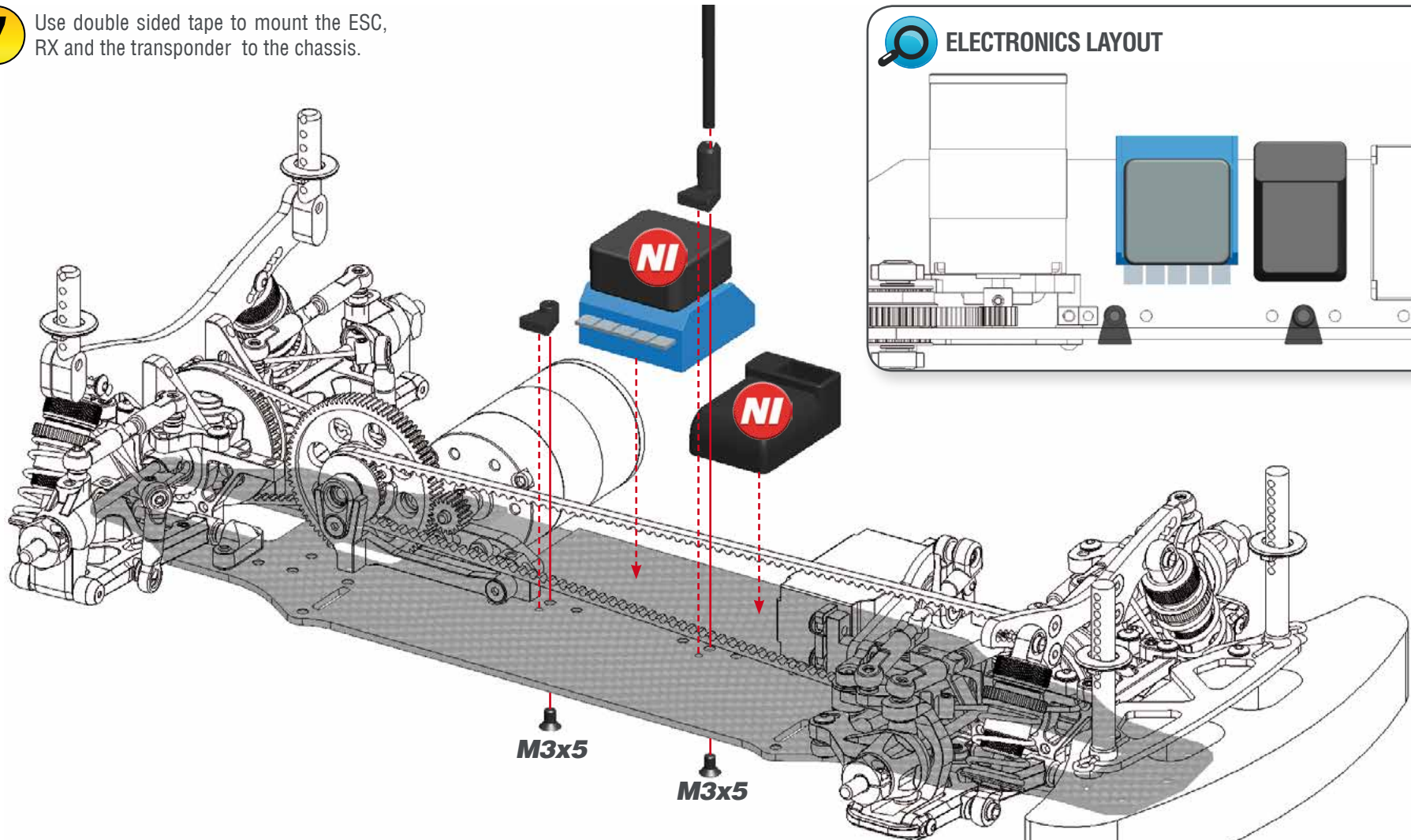


**NI** Pinion is not included in the kit. Assemble the proper pinion for your set-up. **1**

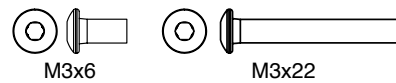
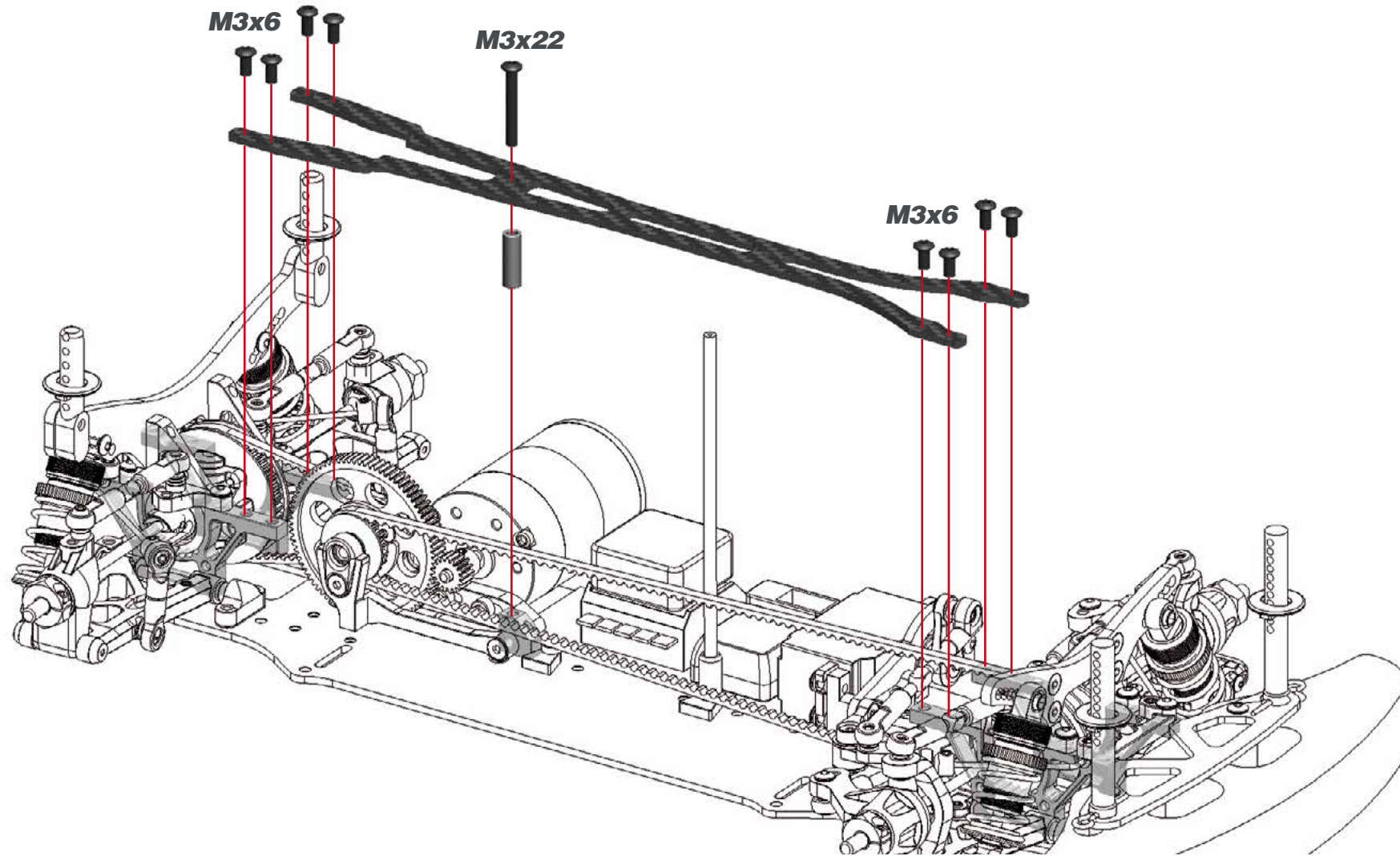


**STEP 44**

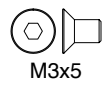
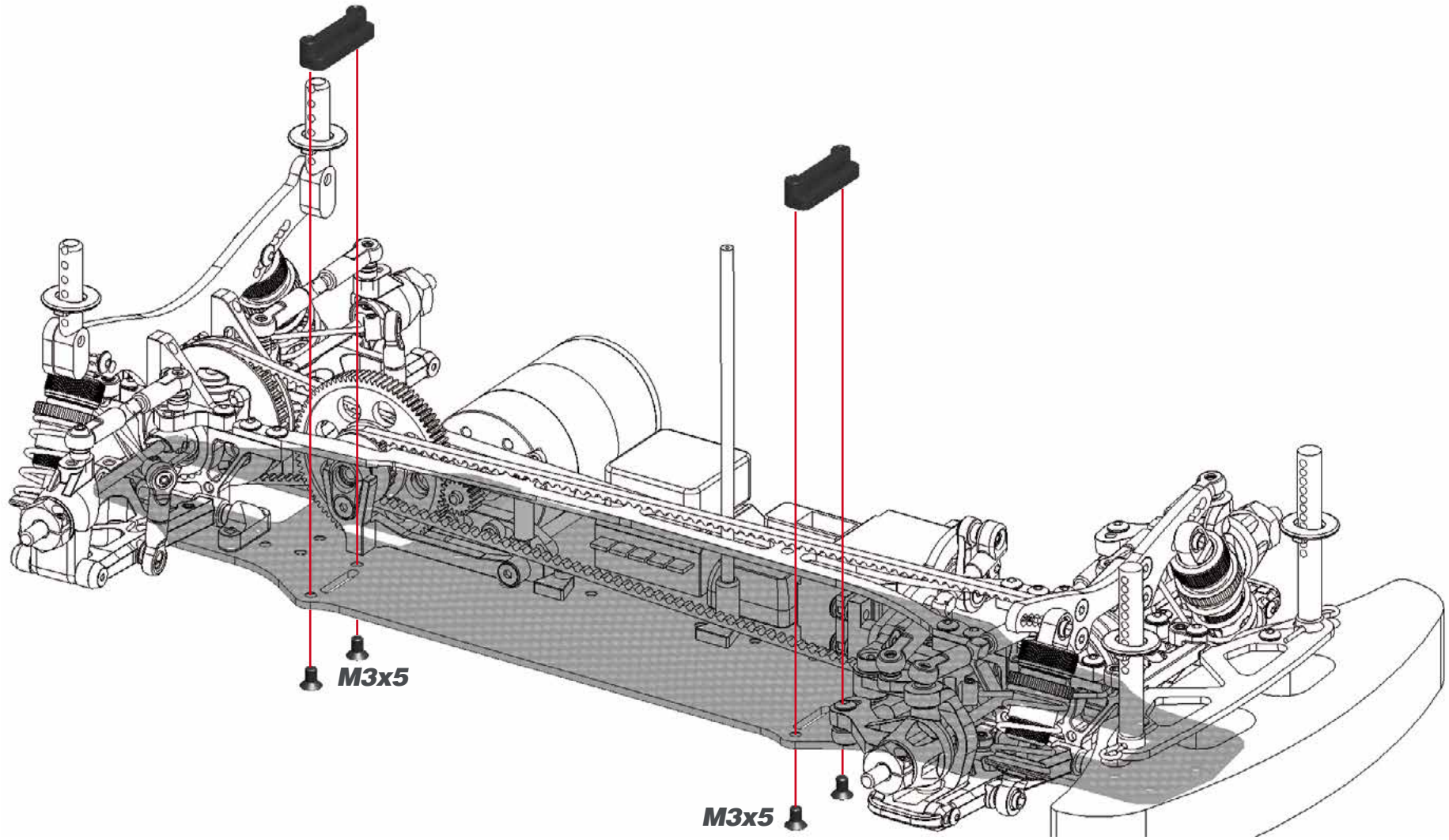
 Use double sided tape to mount the ESC, RX and the transponder to the chassis.



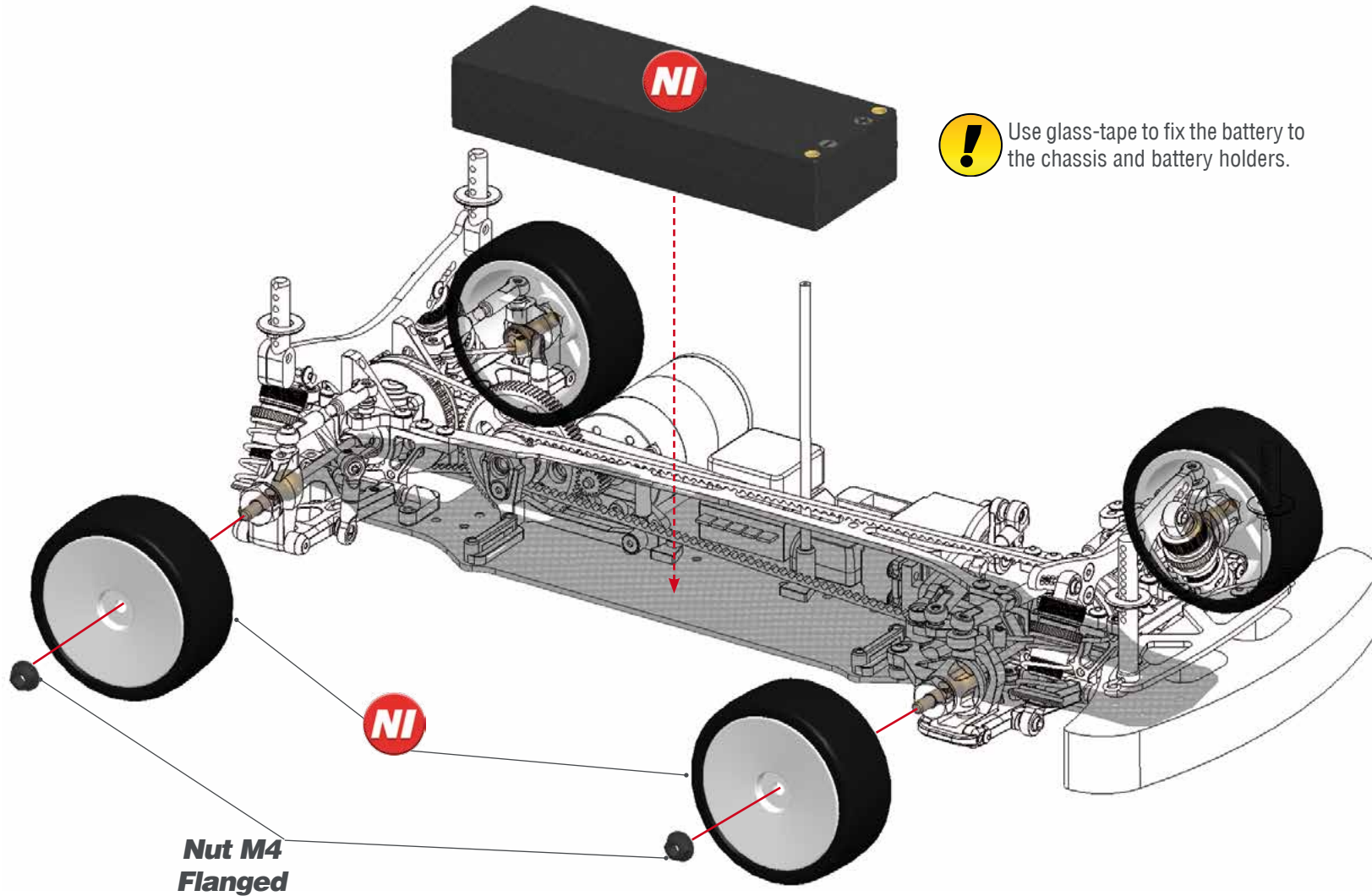
**STEP 45**



**STEP 46**

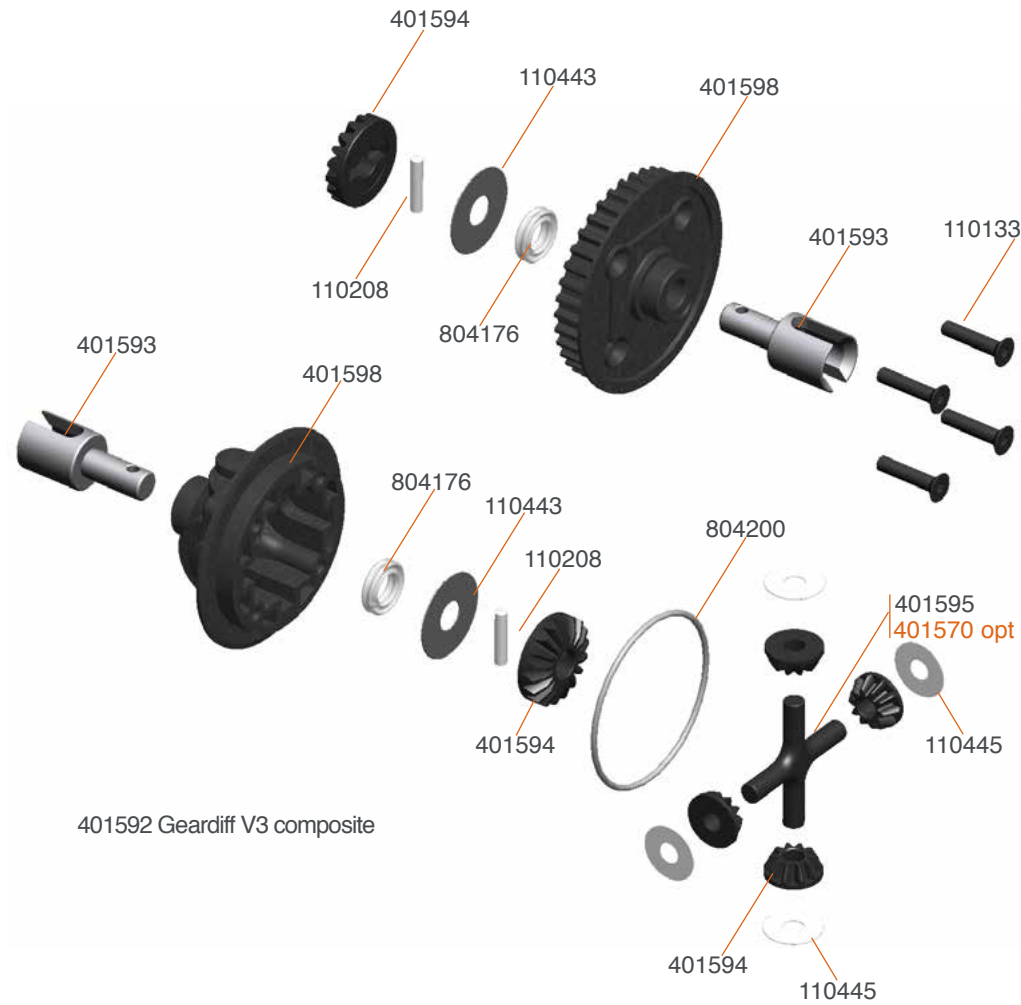


**STEP 47**



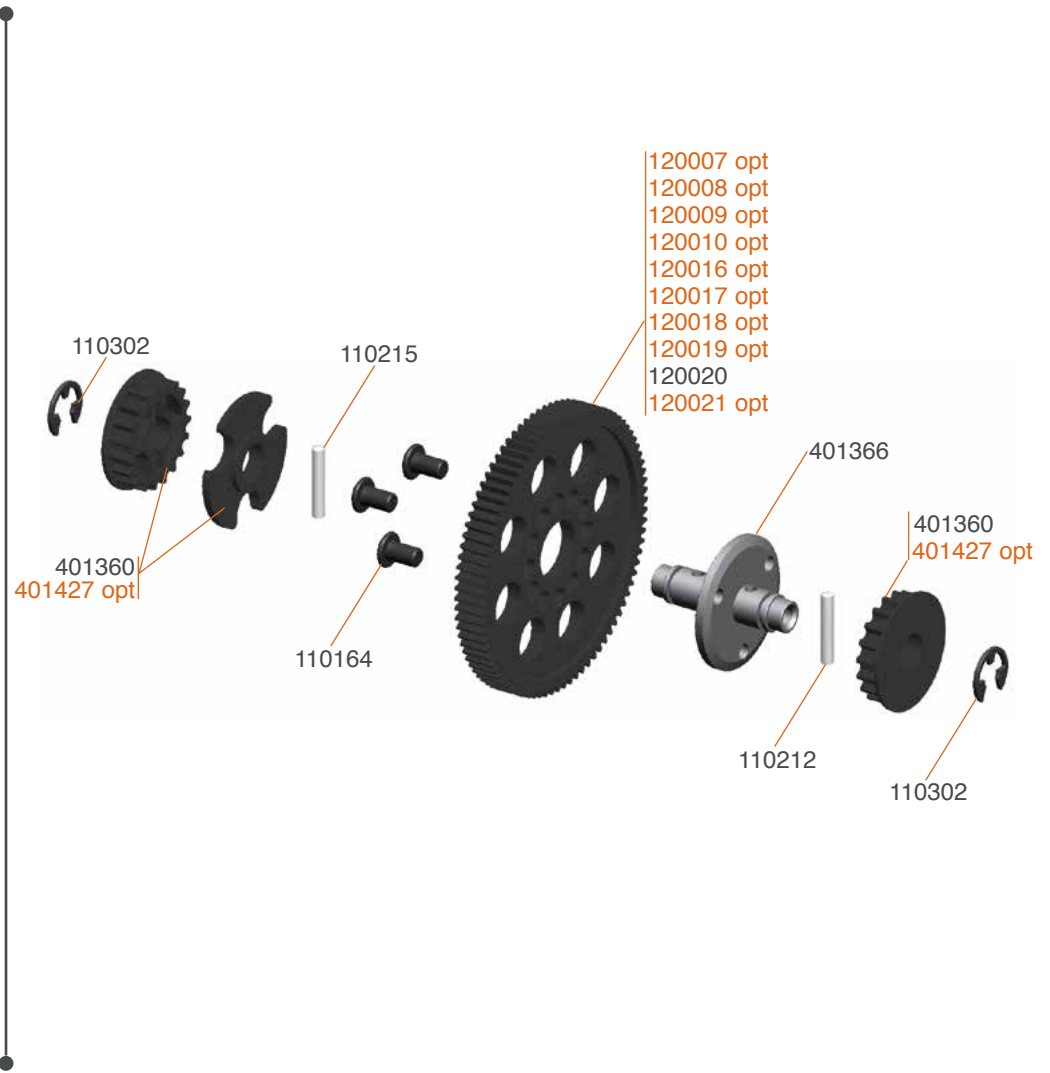
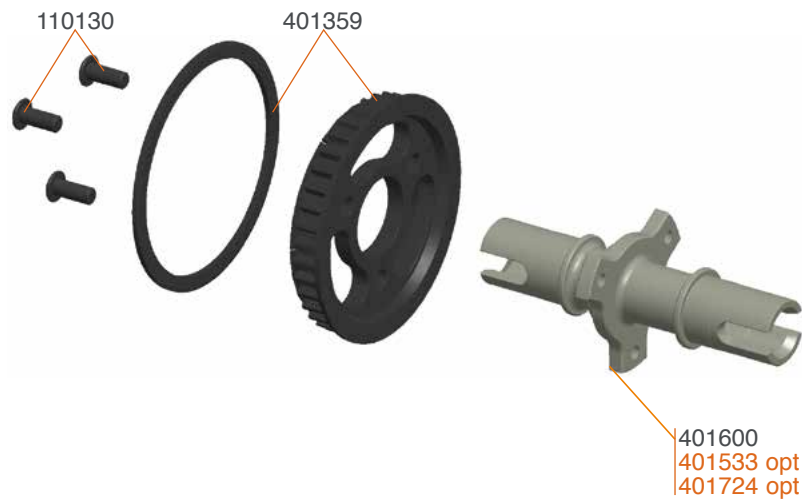
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401570 Gerdiff 1/10 V2 shaft alu (2)



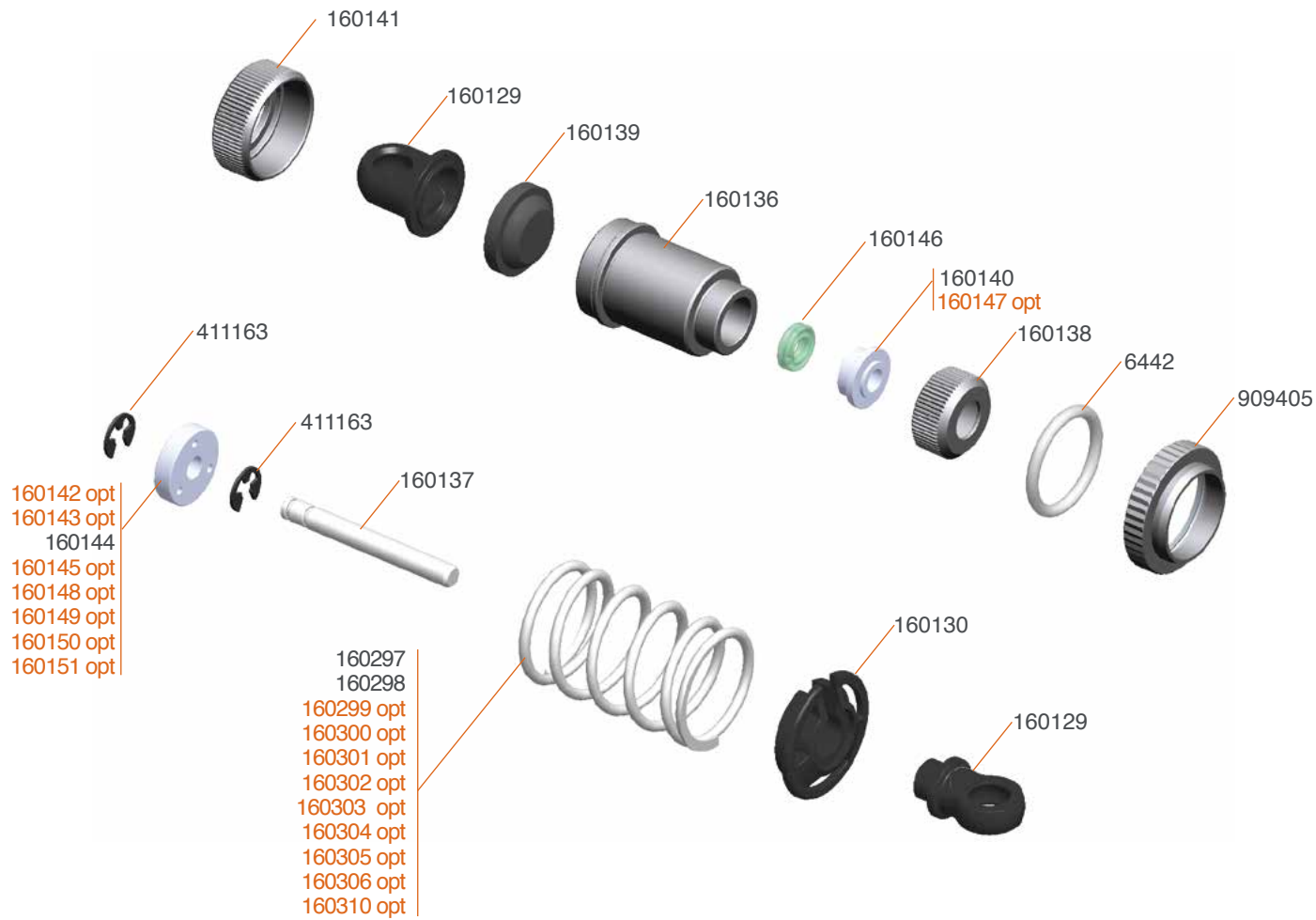


- 401427 Pulley 19T alu
- 401533 Spool nylon for 411
- 401629 Middle shaft set S411 4.0 (3)
- 401633 Pulley mid alu 19T S411 4.0 (2)
- 401723 Solid axle set
- 401724 Solid axle

- 401725 Drive adaptor solid axle (2)
- 120007 Spur-gear Super-True 64P / 100T
- 120008 Spur-gear Super-True 64P / 104T
- 120009 Spur-gear Super-True 64P / 108T
- 120010 Spur-gear Super-True 64P / 112T
- 120016 Spur-gear Super-True 48P / 72T

- 120017 Spur-gear Super-True 48P / 75T
- 120018 Spur-gear Super-True 48P / 78T
- 120019 Spur-gear Super-True 48P / 81T
- 120021 Spur-gear Super-True 48P / 87T



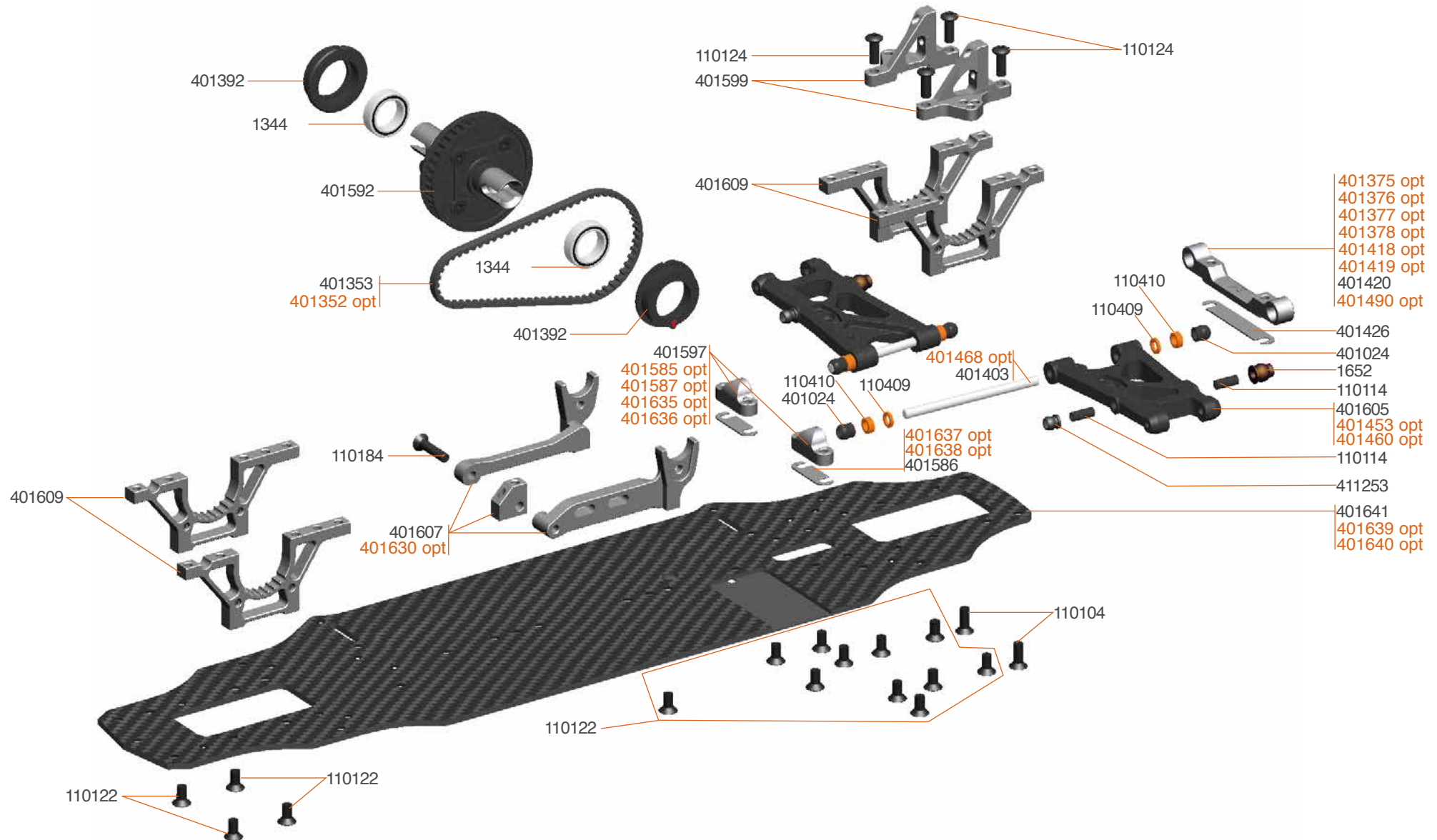


- 160148 Shock onroad big bore piston 1 hole LF (2)
- 160149 Shock onroad big bore piston 2 hole LF (2)
- 160150 Shock onroad big bore piston 3 hole LF (2)
- 160151 Shock onroad big bore piston 4 hole LF (2)
- 160297 Spring grey TC

- 160298 Spring black TC
- 160299 Spring green TC
- 160300 Spring white
- 160301 Spring yellow
- 160302 Spring orange

- 160304 Spring Pink
- 160305 Spring blue
- 160306 Spring purple
- 160310 Spring-set L23 (5x2)
- 160147 Shock onroad big bore bushing LF (4)

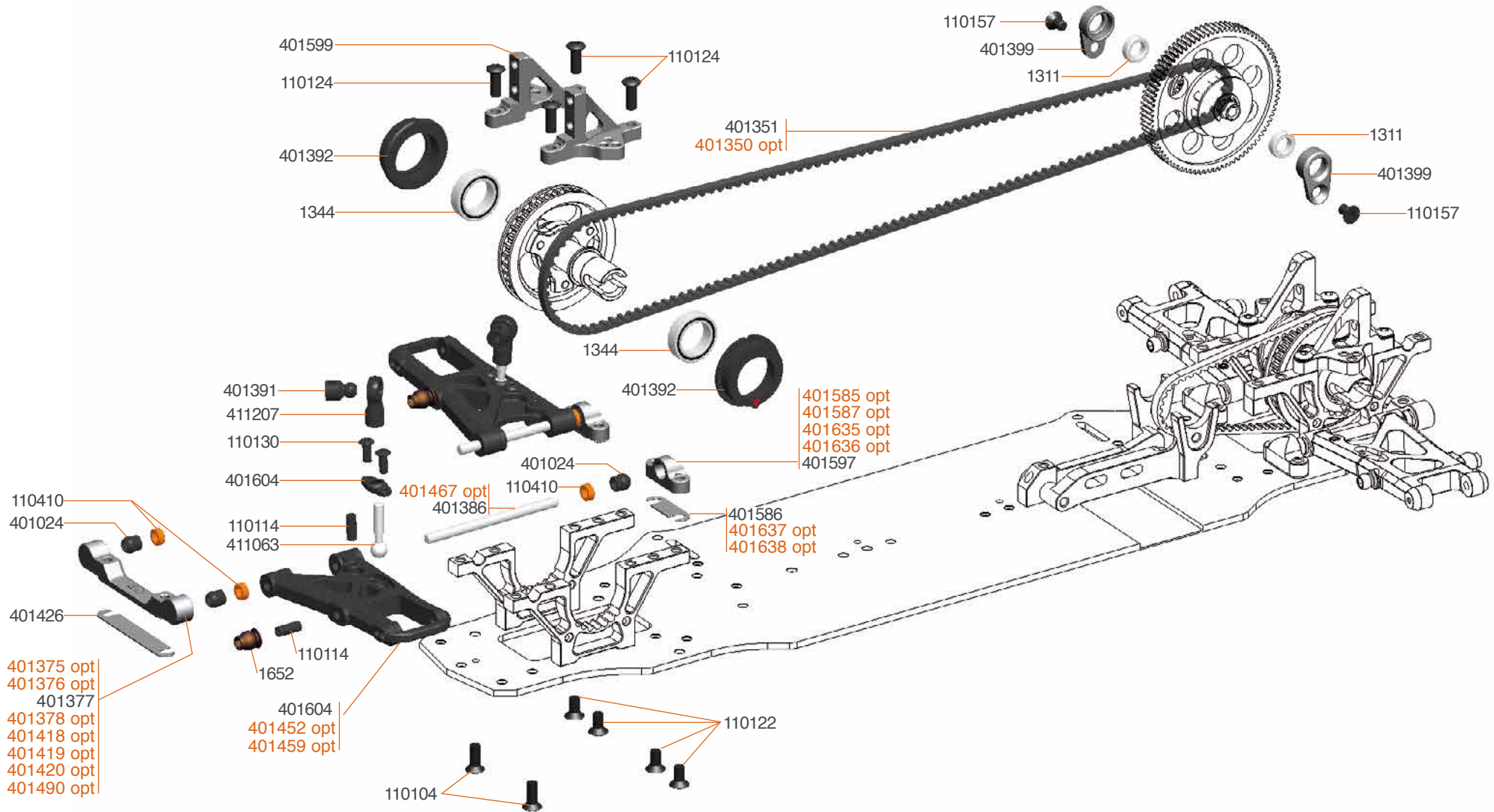




- 401352 Belt Kevlar 30S3M186
- 401375 Suspension bracket alu 0
- 401376 Suspension bracket alu 1
- 401377 Suspension bracket alu 2
- 401378 Suspension bracket alu 3
- 401419 Suspension bracket alu 2.5

- 401453 Wishbone Rr Lw hard (2)
- 401460 Wishbone Rr Lw medium (2)
- 401468 Pivot pin rear-inner TiN (2)
- 401585 Suspension bracket alu 0-2
- 401587 Suspension bracket alu 1.0 - 1.0
- 401630 Motormount S411 4.0

- 401635 Suspension bracket alu 0.5 S411 4.0 (2)
- 401636 Suspension bracket alu 1.5 S411 4.0 (2)
- 401637 Suspension spacer 0.5 alu S411 4.0 (4)
- 401638 Suspension spacer 1.0 alu S411 4.0 (4)
- 401639 Chassis carbon 2.0mm S411 4.0
- 401640 Chassis alu 2.0mm S411 4.0

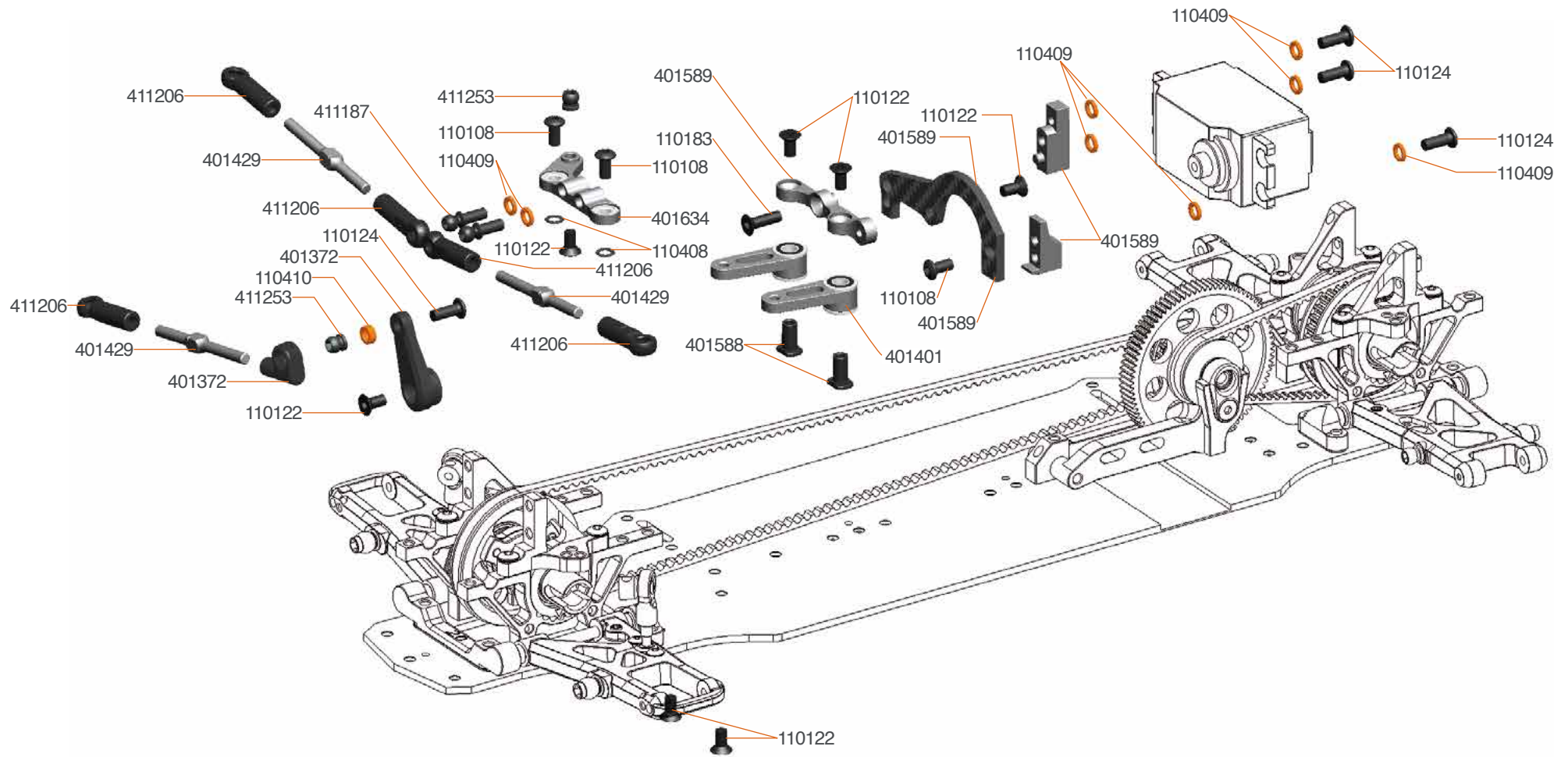


401375 Suspension bracket alu 0  
401376 Suspension bracket alu 1  
401378 Suspension bracket alu 3  
401419 Suspension bracket alu 2.5  
401420 Suspension bracket alu 3.5

401452 Wishbone Fr Lw hard (2)  
401459 Wishbone Fr Lw medium (2)  
401467 Pivot pin front inner TiN (2)  
401585 Suspension bracket alu 0-2  
401587 Suspension bracket alu 1.0 - 1.0

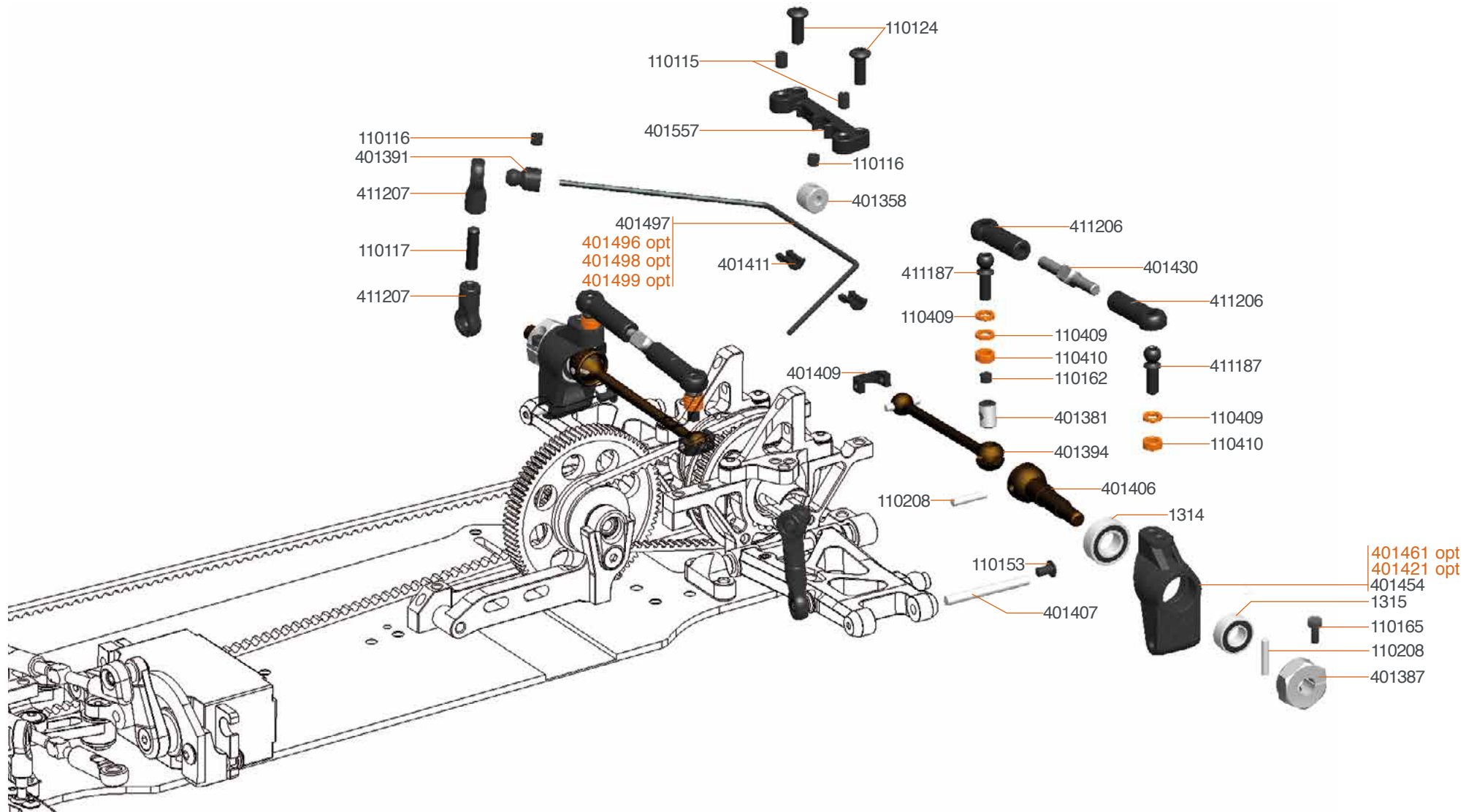
401635 Suspension bracket alu 0.5 S411 4.0 (2)  
401636 Suspension bracket alu 1.5 S411 4.0 (2)  
401637 Suspension spacer 0.5 alu S411 4.0 (4)  
401638 Suspension spacer 1.0 alu S411 4.0 (4)





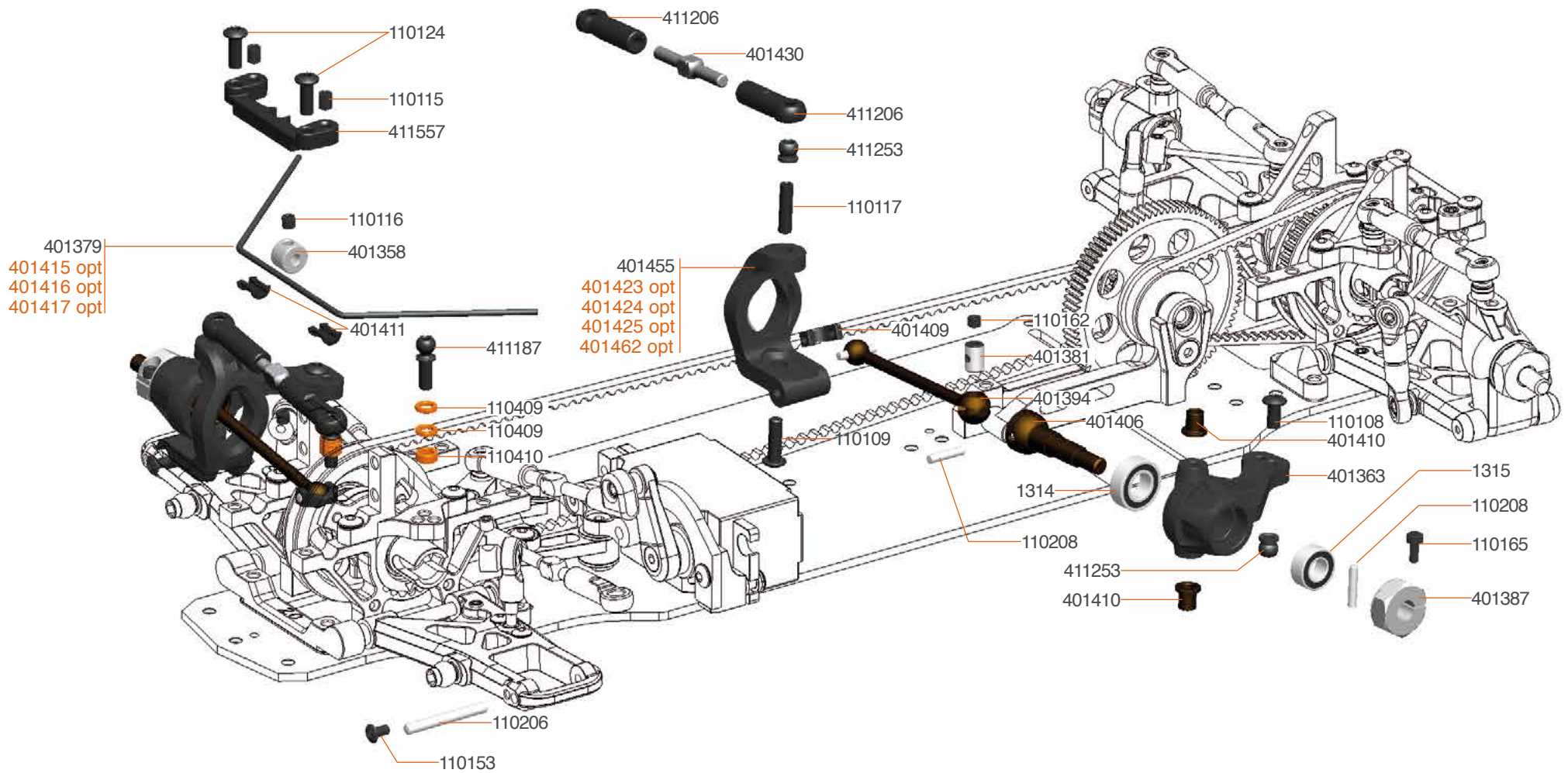
401465 Steering rack V2





- 401496 Antirrollbar 1.2mm rear
- 401498 Antirrollbar 1.6mm rear
- 401499 Antirrollbar 1.8mm rear
- 401421 Upright alu (2)

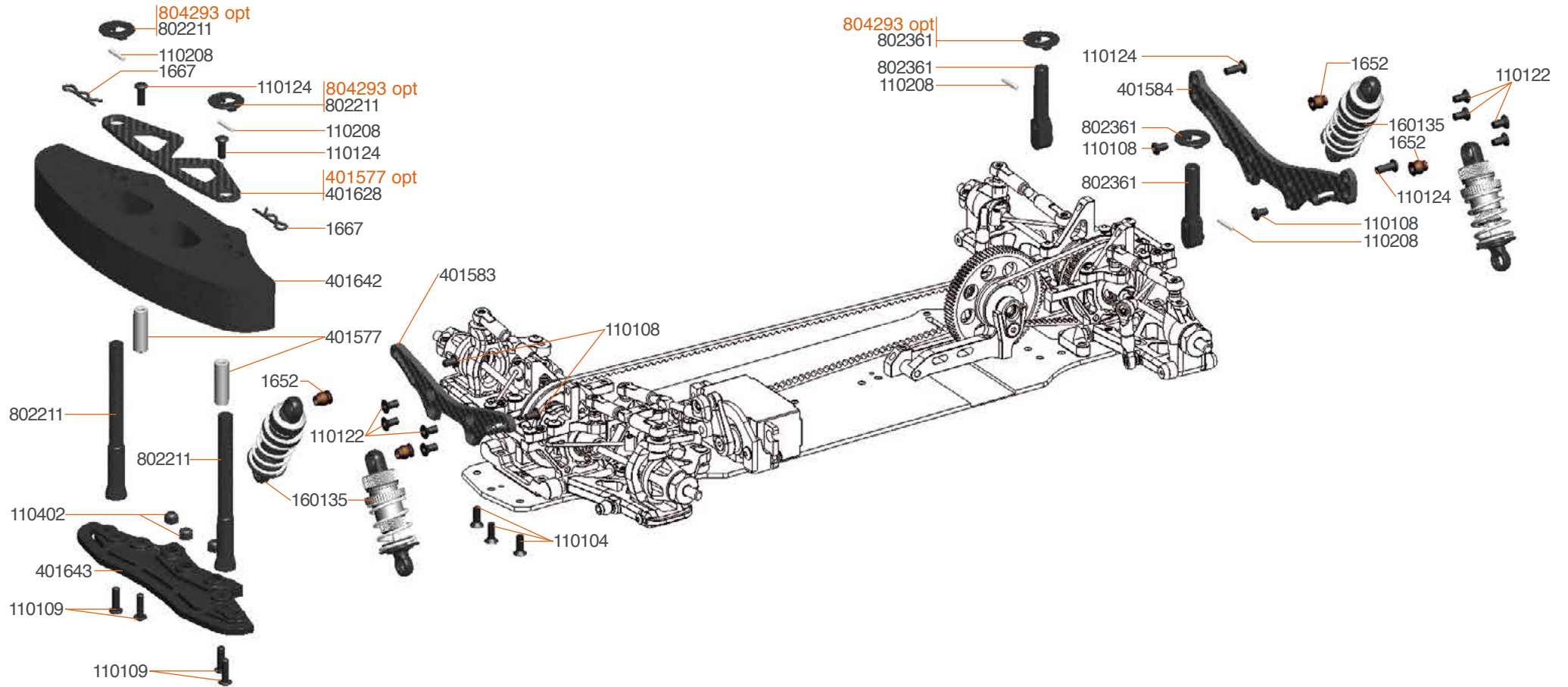
- 401461 Upright medium (2)



401373 CVD axle set steel (2)  
 401415 Antirollbar 1.2mm  
 401416 Antirollbar 1.6mm  
 401417 Antirollbar 1.8mm

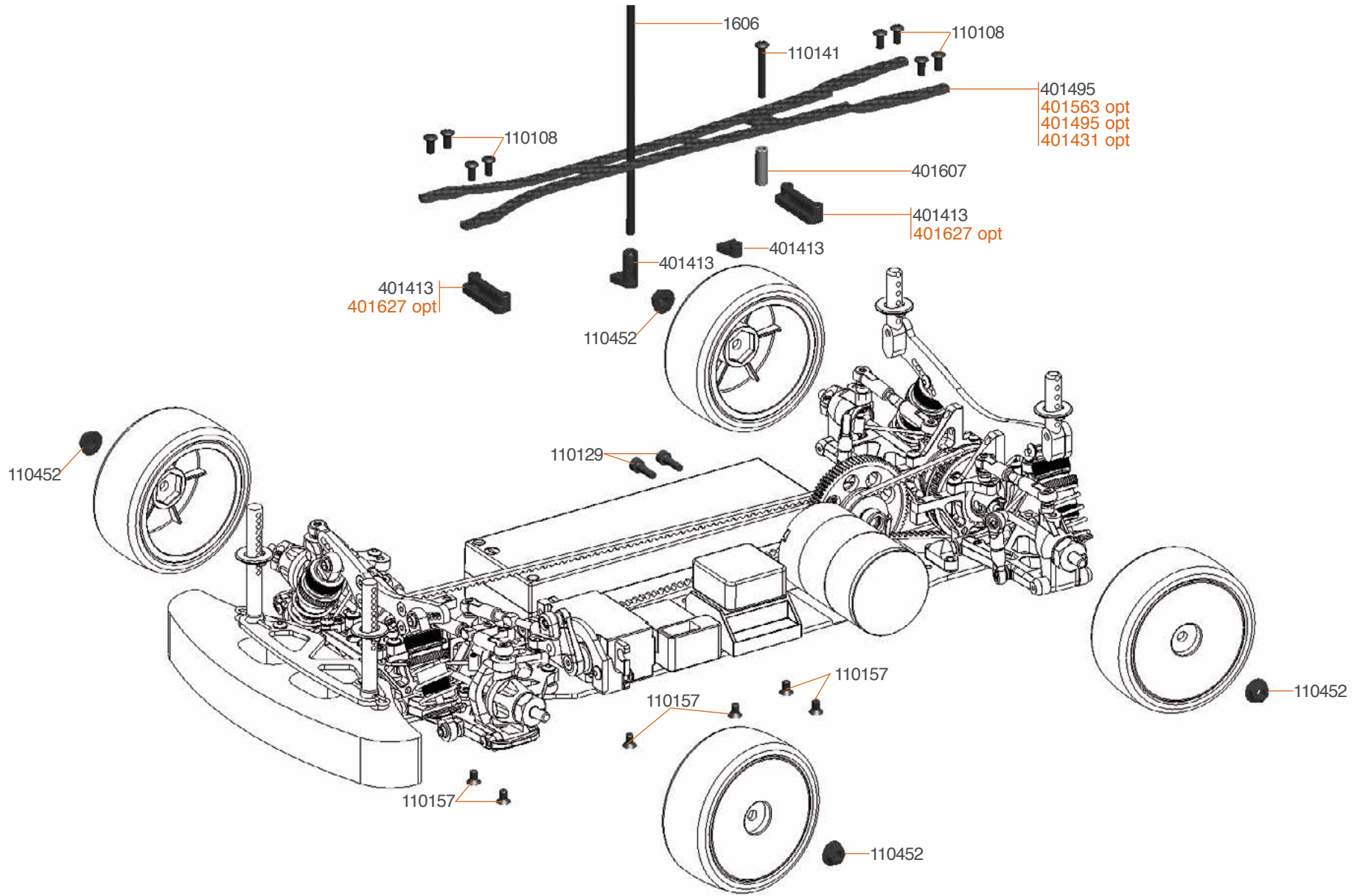
401423 C-hub 2 alu L+R  
 401424 C-hub 4 alu L+R  
 401425 C-hub 6 alu L+R  
 401445 Double joint cardan DJC set (2)

401462 C-hub 4 L+R medium



- 401413 Battery mount (4)
- 401577 Bumperplate carbon set S411
- 401621 Motor fan mount S411
- 804293 Body support washers med + high (5+5)





401413 Battery mount (4)  
 401621 Motor fan mount S411  
 401563 Topdeck carbon 1.75mm  
 401495 Topdeck carbon 2mm flex

401431 Topdeck carbon 2.5mm  
 401464 Lipo-battery-holder carbon 411 (2)  
 401627 Adjustable battery mount set S411

# TEAM SERPENT NETWORK

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## ERYX 4.1 OPTIONALS PARTS [www.serpent.com/400019/Optionals/](http://www.serpent.com/400019/Optionals/)



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# S411 ERYX 4.1

