



# IRIS

IRIS ONE COMPETITION TOURING CAR KIT

#RACEIRIS



## **Thank you for purchasing this IRIS ONE Touring Car.**

**We truly appreciate it.**

**This is the first step for us creating a complete new platform of high-end on-road racing cars.**

**We at Ruddog are passionate racers since birth and being able to bring our own brand of in-house designed racing cars has been a dream for many years. This has now finally come to a close with this first of many cars with our platform and brand name IRIS.**

**We also wanted to make sure that if we bring something into the racing scene we do not stay inside the box but instead try to think on how can we improve handling, lower the CG, offer great adjustability yet easy to setup. How can we contribute to the hobby we are so passionate about and not just do what everyone else is already doing?**

**Our designer Andreas Myrberg had something in mind, something which has not yet been done and set out to pursue it.**

**We have now, a car, on a complete new platform, with low CG, easy to adjust features, innovative solutions and it looks in our opinion, stunning.**

**Now, it is our first ever attempt and the road has been much longer and more difficult than we anticipated. Many issues we did not foresee and parts that needed to be re-designed to maintain the high level of tolerances and accuracy we wanted to achieve. Those things however were vital in the learn process to improve for the future but the lessons learned already improved many of the parts in this kit.**

**Therefore, when we start by writing, thank you for purchasing an IRIS ONE and that we truly appreciate it, we do mean it.**

**We are set out to do our best, in supporting you, creating content around our brand and products, improving setups, creating option and tuning parts that makes sense and actually brings value to our customers.**

**We are aiming high, with that comes a lot of risk but we are willing to take them to create in our minds the best possible products for you.**

**So again, thank you and we hope you will enjoy to be part of the start of hopefully something great over time.**

**Sven Rudig and Andreas Myrberg**



## 1. PDF Manual

Please scan the QR-Code on the left to download this manual as PDF version. We are aware that some pictures of this manual are very dark, and this is something that will be improved for future IRIS releases. The PDF version will help you to see some of the details, that may not be visible in this printed manual.



## 2. Videos

We will make several videos on how-to build and set-up the Iris ONE at the beginning of 2023. All those videos will be uploaded onto the RUDDOG Youtube channel. They will help you to improve the performance and maintainance of your Iris ONE.

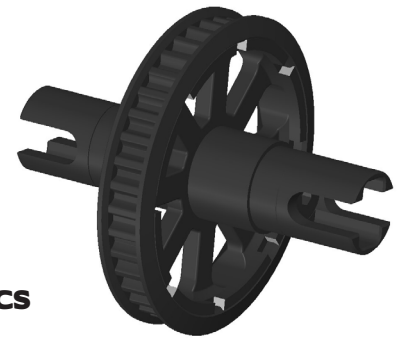
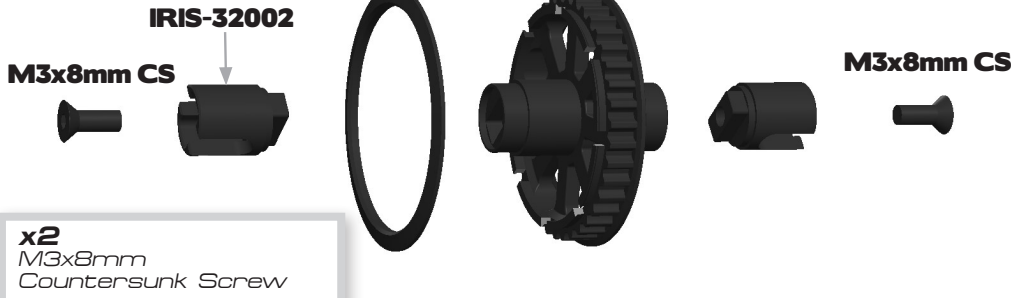


## 3. Setups

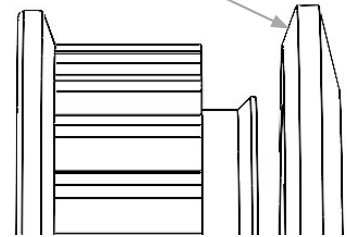
There will be a dedicated setup area on [www.iris-racing.com](http://www.iris-racing.com) giving you all of the latest setup developments of our team. We recommend to download one of these setups to build this car. Especially at the beginning we will learn a lot. So at the time of building this kit, we might have gain already more set-up information and the setup described in this manual might be already outdated again.

## 1.1

### SPOOL

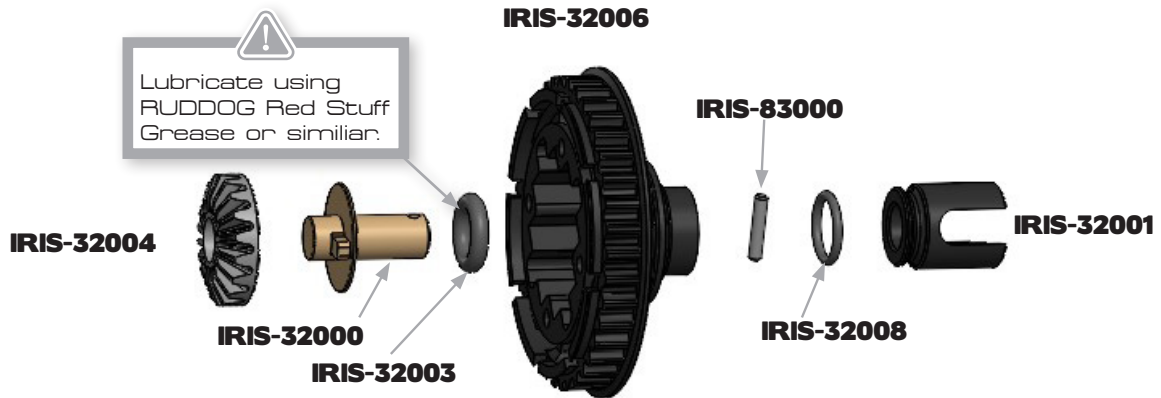


**Note Direction**



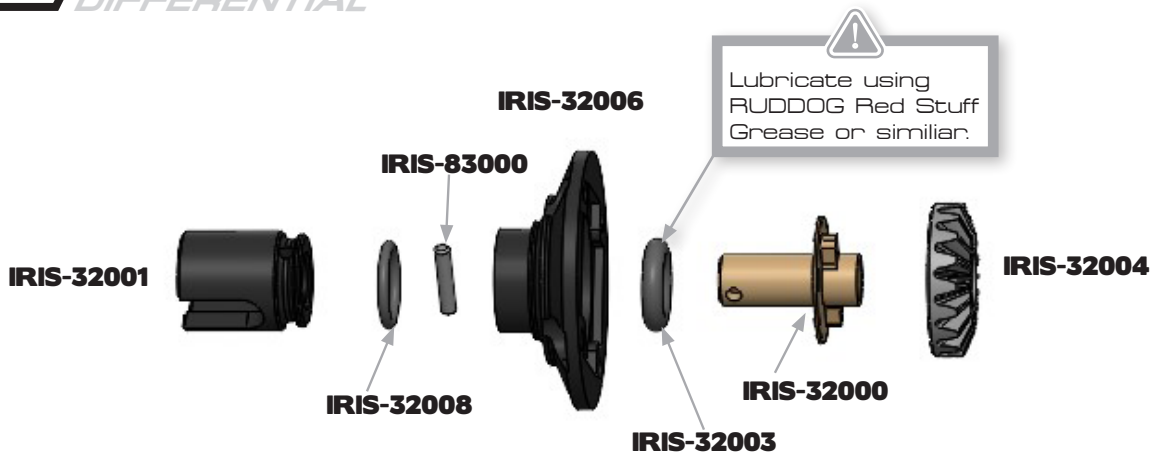
## 1.2

### DIFFERENTIAL



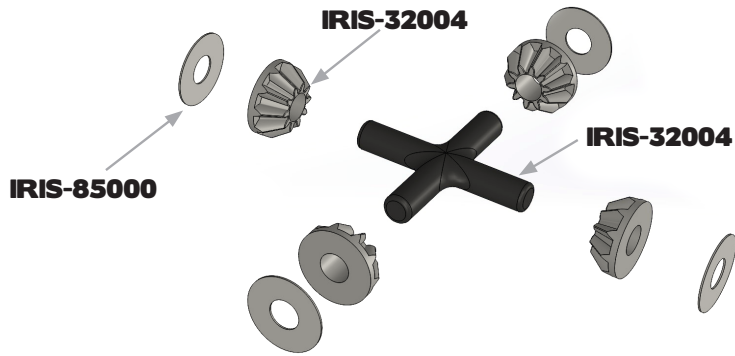
## 1.2

### DIFFERENTIAL



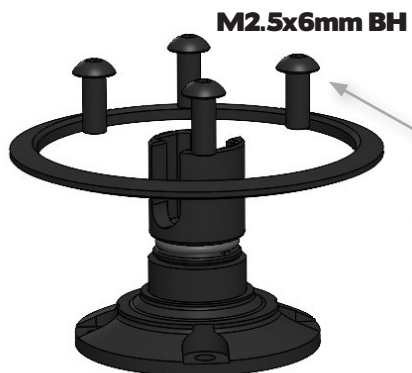
## 1.2

DIFFERENTIAL



## 1.2

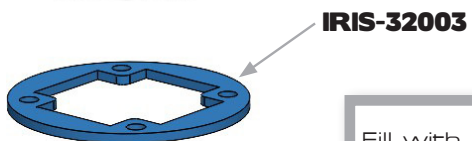
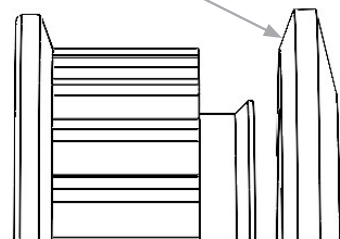
DIFFERENTIAL



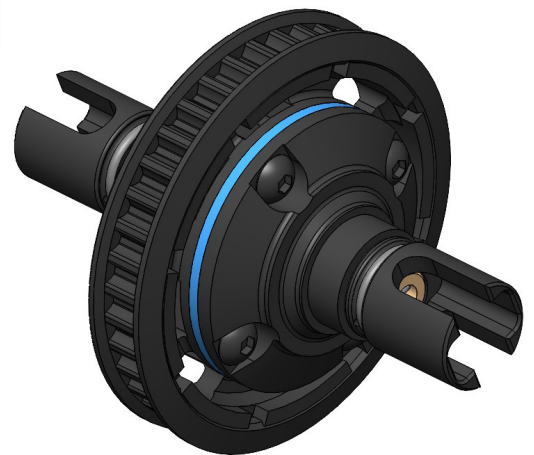
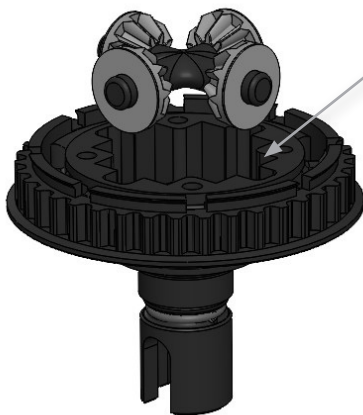
Do not overtighten.

x4  
M2.5x6mm  
Button Head Screw

Note Direction

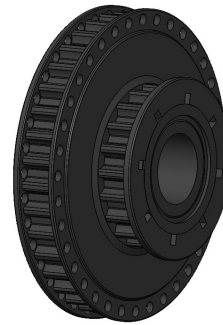


Fill with 1.0g of Silicone Oil. We recommend 7k cst as starting point.



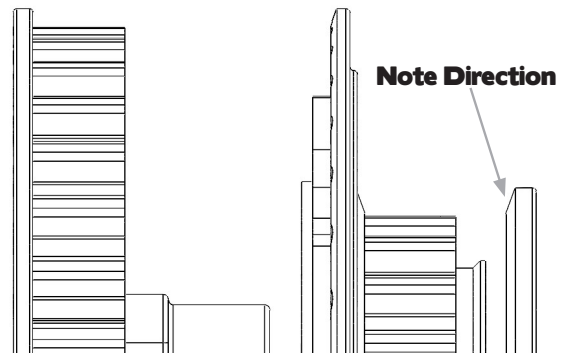
## 1.3

### FRONT MIDDLE GEAR



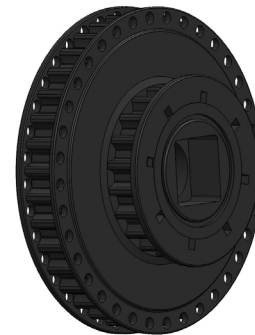
Front version has a round shape.

**IRIS-32007**



## 1.4

### REAR MIDDLE GEAR

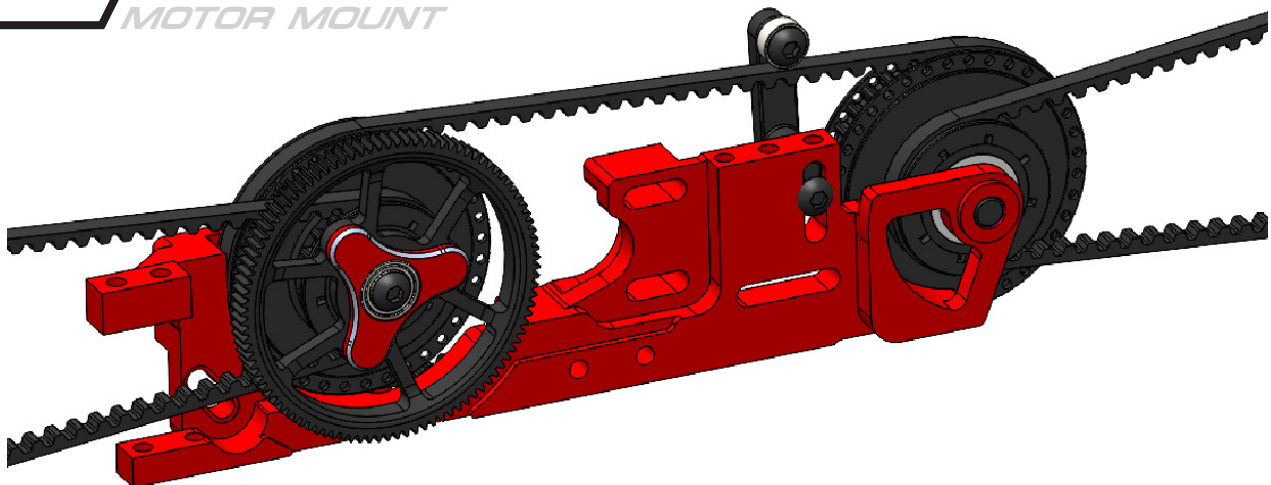


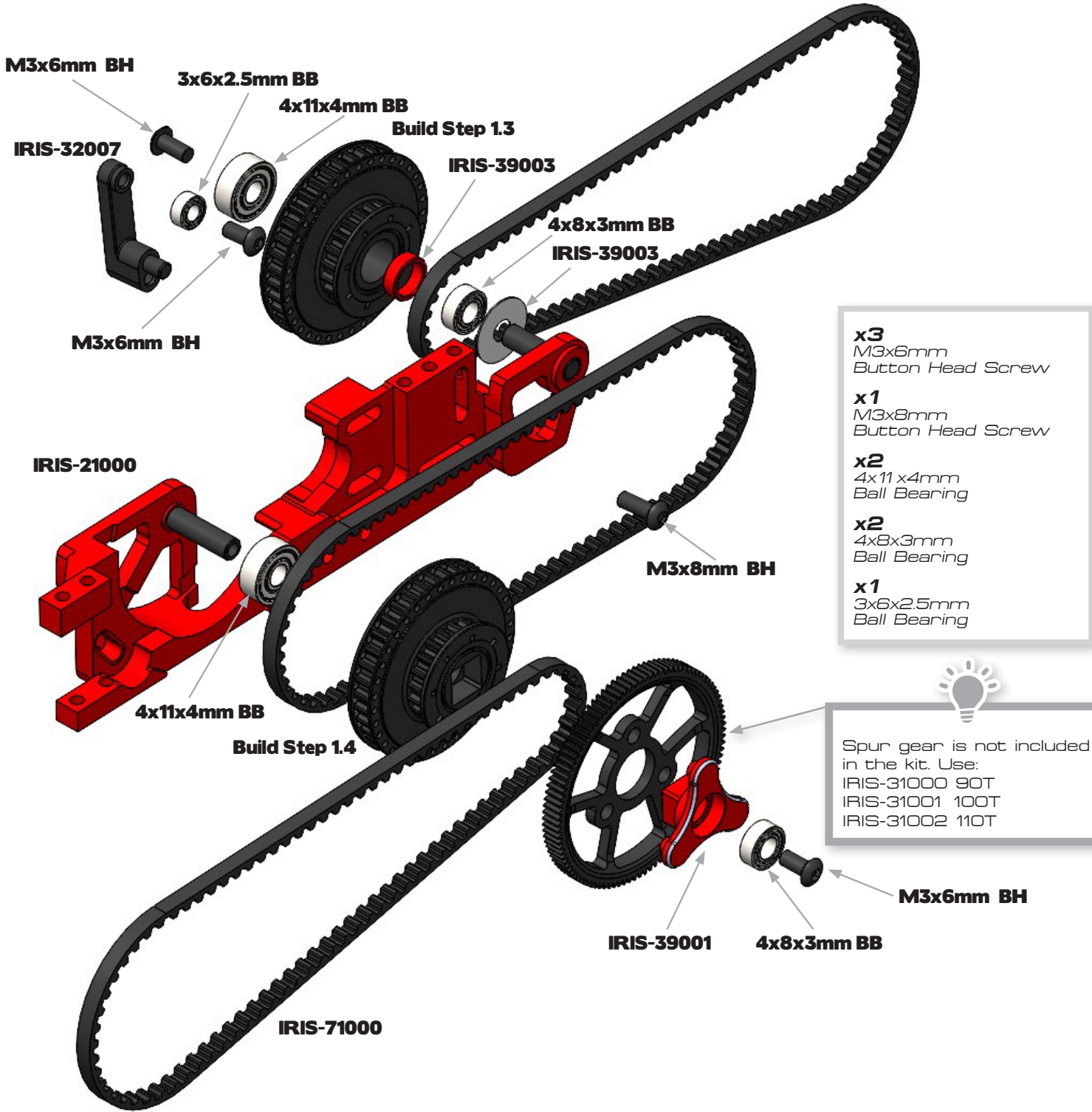
Rear version has a square shape.

**IRIS-32007**

## 2.1

### MOTOR MOUNT





## 2.2

### BULKHEAD LEFT

x4  
M3x3mm  
Set Screw



Build this step twice !

IRIS-21002

IRIS-21004



M3x3mm SS

## 2.3

### BULKHEAD RIGHT

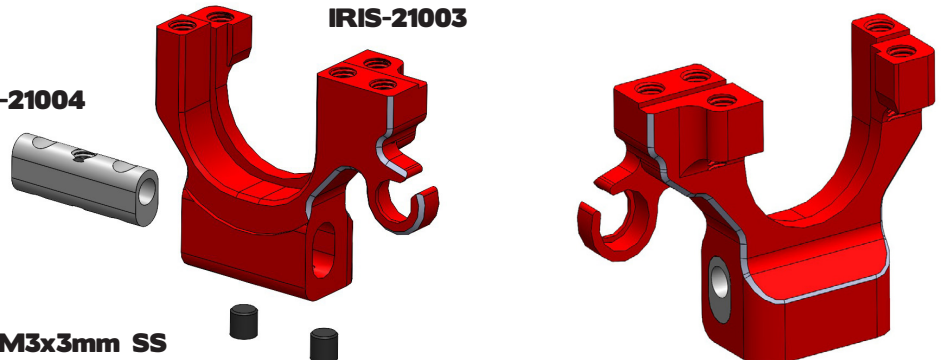
x4  
M3x3mm  
Set Screw



Build this step twice !

IRIS-21004

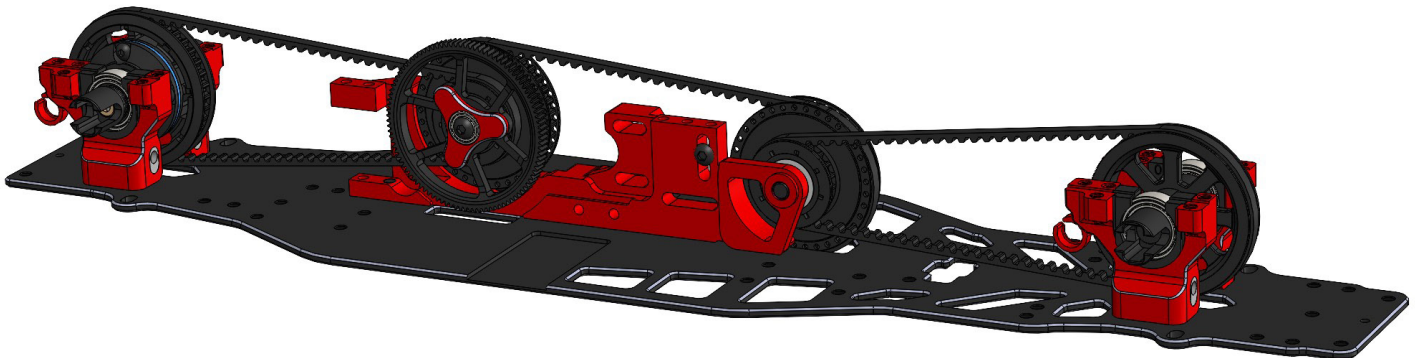
IRIS-21003



M3x3mm SS

## 3.1

### CHASSIS





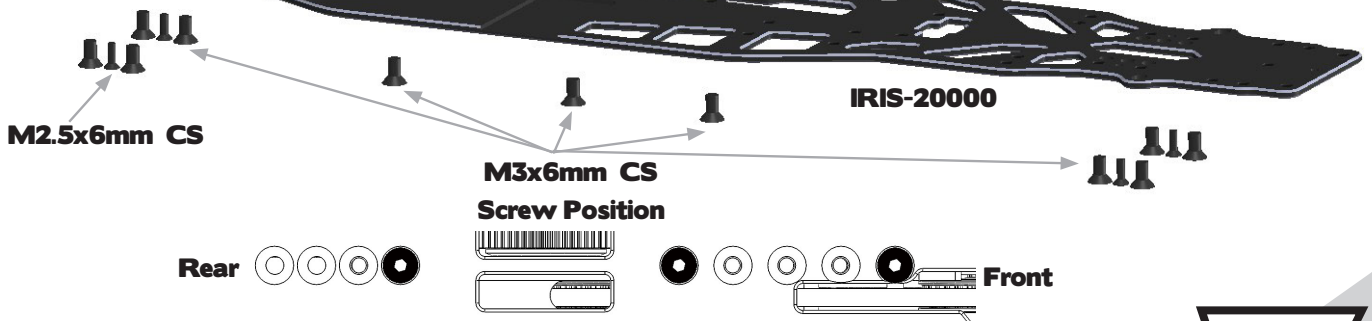
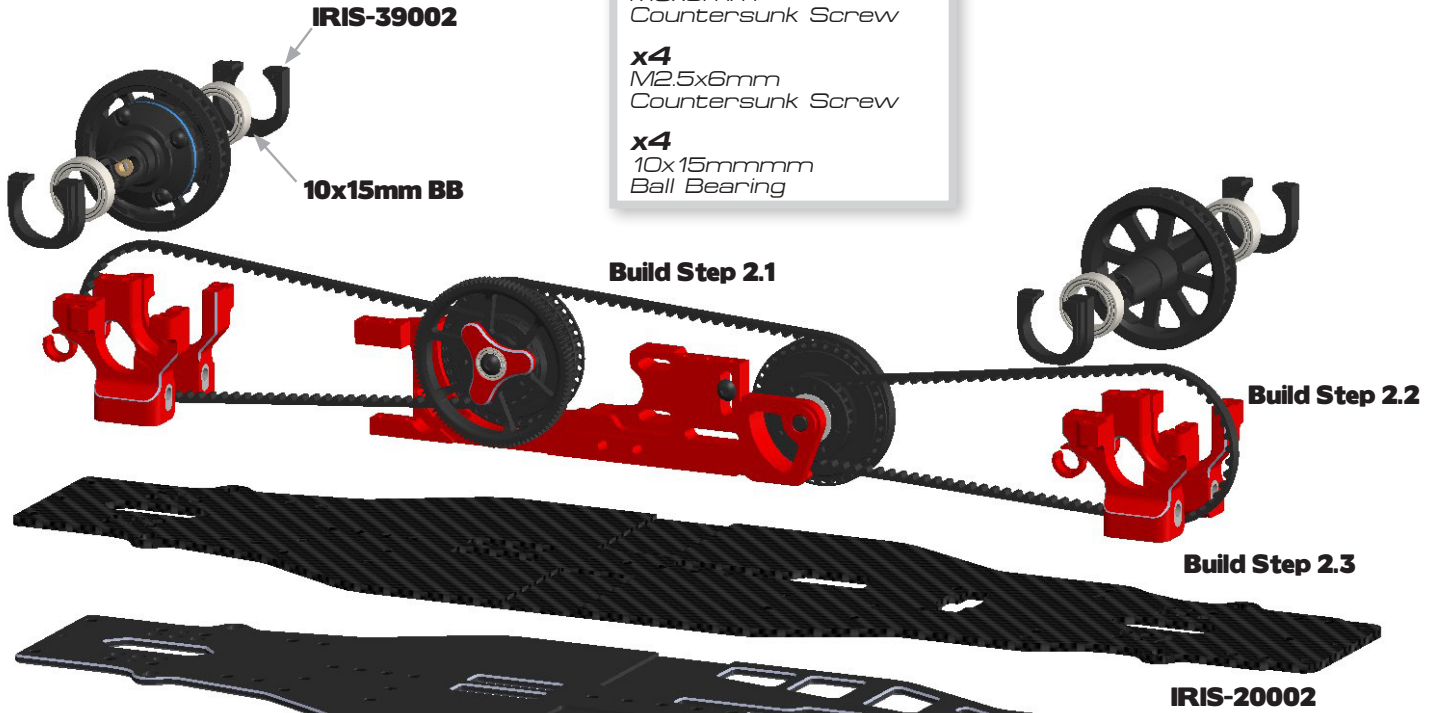


Start with #1 inserts with the number facing the direction of the motor / center of the chassis to get the correct

## 3.1

### CHASSIS

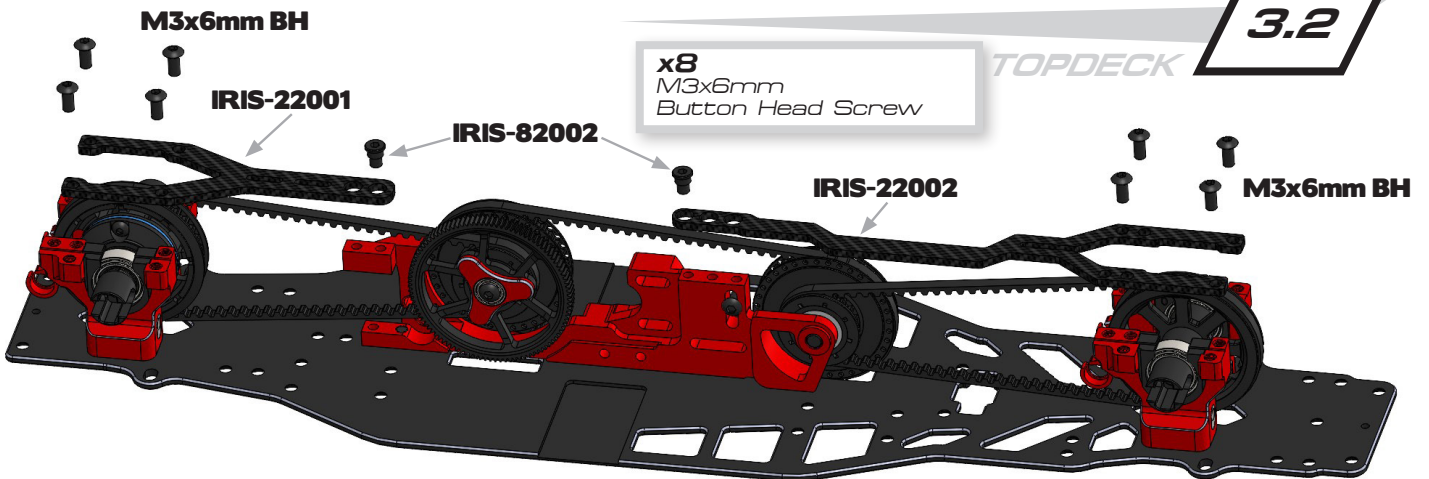
- x11**  
M3x6mm  
Countersunk Screw
- x4**  
M2.5x6mm  
Countersunk Screw
- x4**  
10x15mmmm  
Ball Bearing



## 3.2

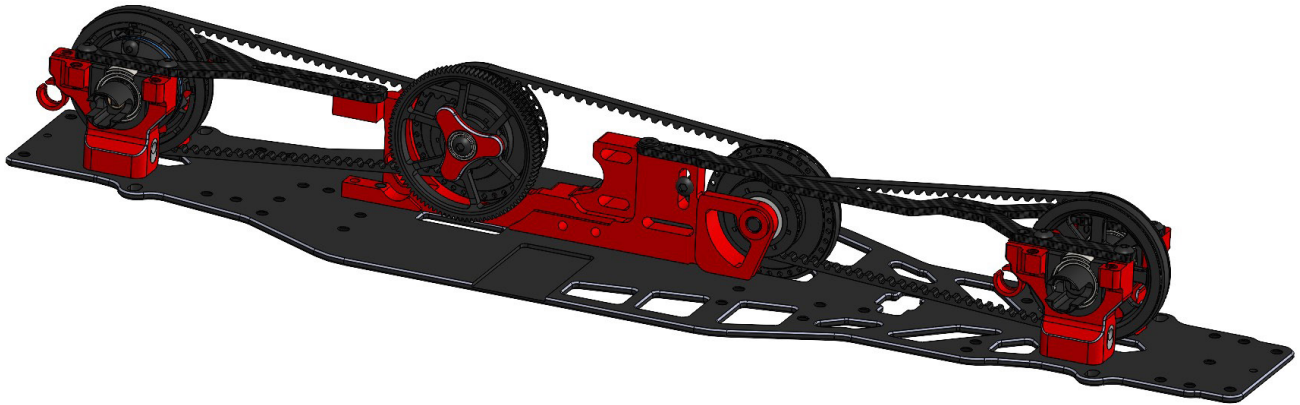
### TOPDECK

- x8**  
M3x6mm  
Button Head Screw



## 3.2

### TOPDECK MOUNTED



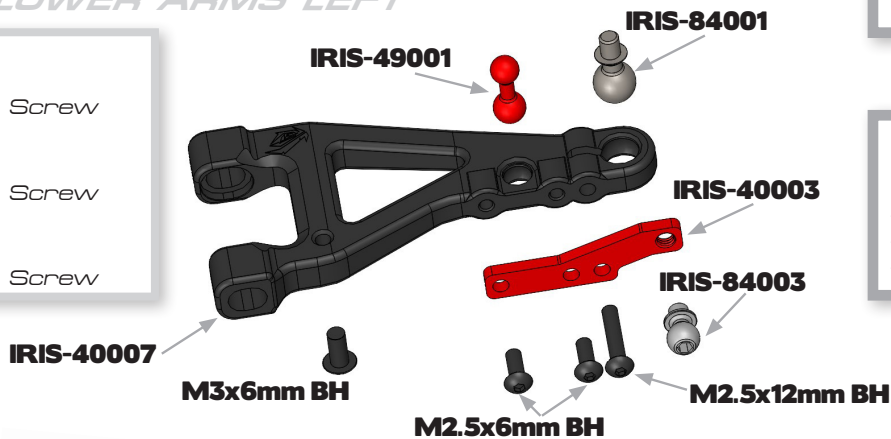
## 4.1

### LOWER ARMS LEFT


**x4**  
M2.5x6mm  
Button Head Screw

**x2**  
M2.5x12mm  
Button Head Screw

**x2**  
M3x6mm  
Button Head Screw

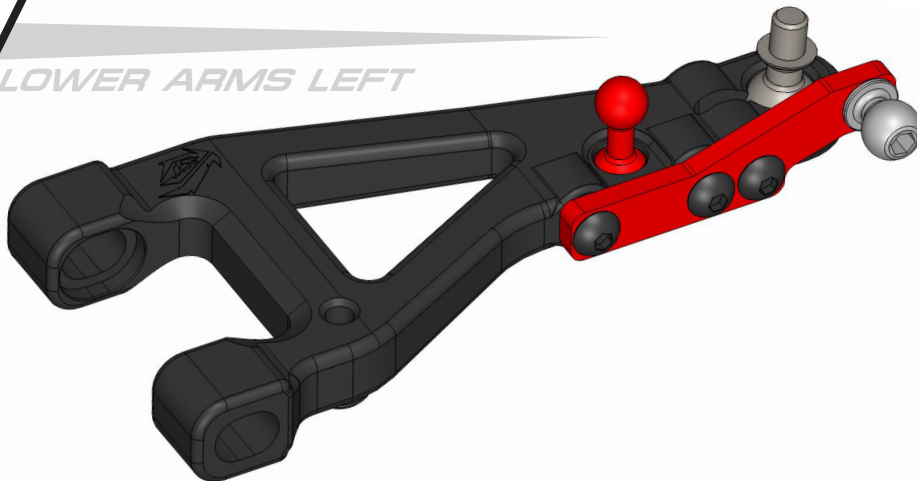


  
Build this step twice !

  
Suspension balls should move freely, yet have not too much play. Adjust by tightening or loosening the M2.5x12mm screw.

## 4.1


### LOWER ARMS LEFT

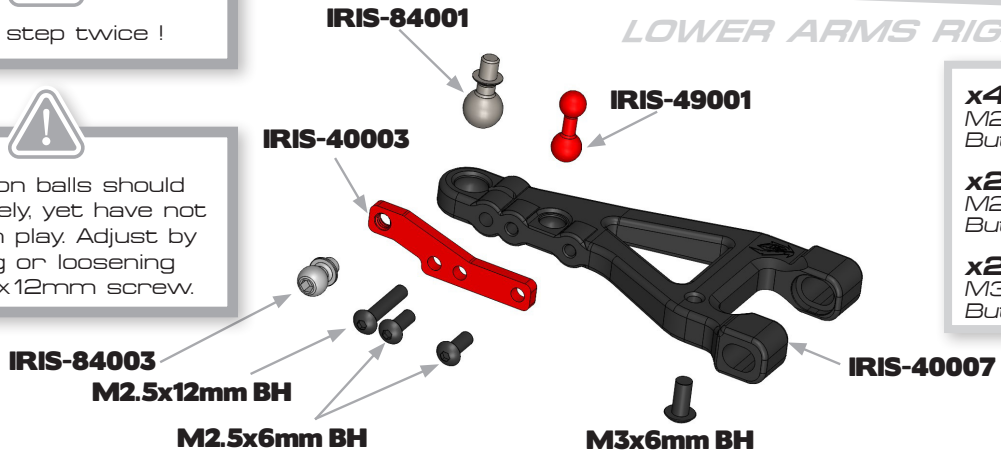


## 4.1

### LOWER ARMS RIGHT

 Build this step twice !

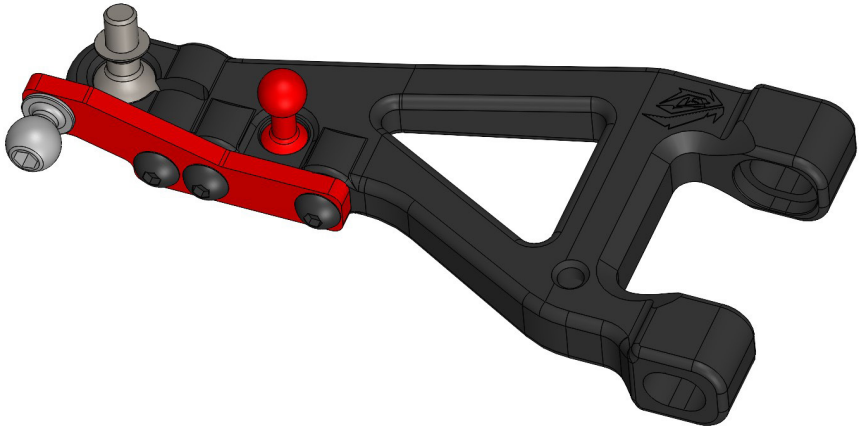
 Suspension balls should move freely, yet have not too much play. Adjust by tightening or loosening the M2.5x12mm screw.



- x4**  
M2.5x6mm  
Button Head Screw
- x2**  
M2.5x12mm  
Button Head Screw
- x2**  
M3x6mm  
Button Head Screw

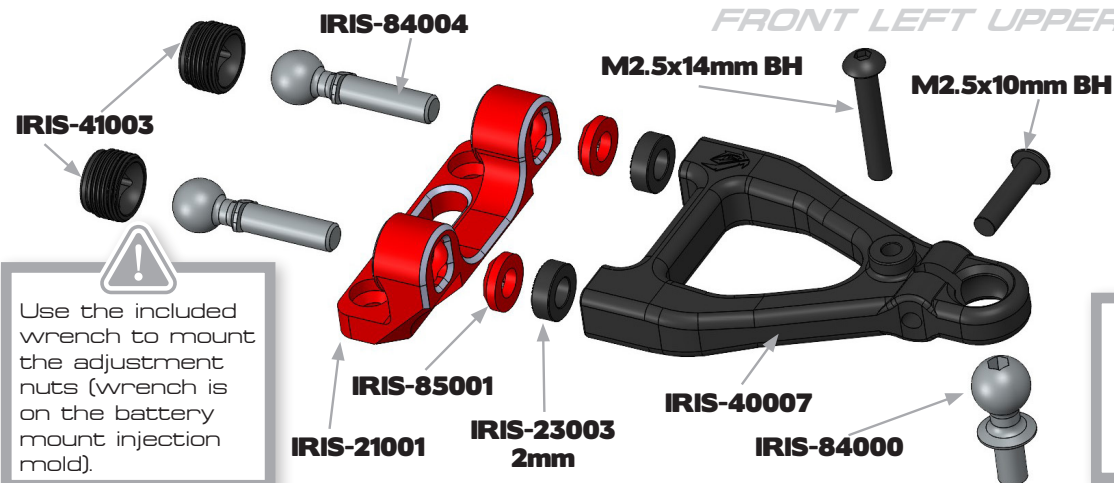
## 4.1

### LOWER ARMS RIGHT





## 4.2

### FRONT LEFT UPPER ARM



- x1**  
M2.5x10mm  
Button Head Screw
- x1**  
M2.5x14mm  
Button Head Screw

 Use the included wrench to mount the adjustment nuts (wrench is on the battery mount injection mold).

 Suspension balls should move freely, yet have not too much play. Adjust by tightening or loosening the IRIS-41003 nuts.

## 4.2

### FRONT RIGHT UPPER ARM

x1  
M2.5x10mm  
Button Head Screw

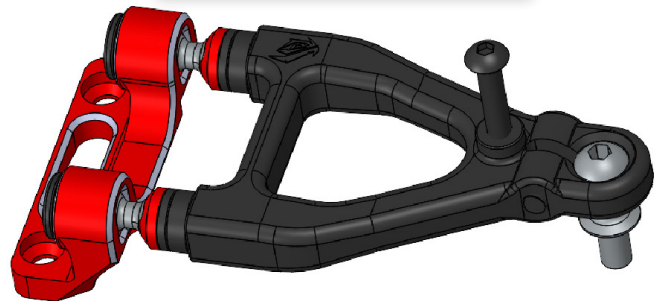
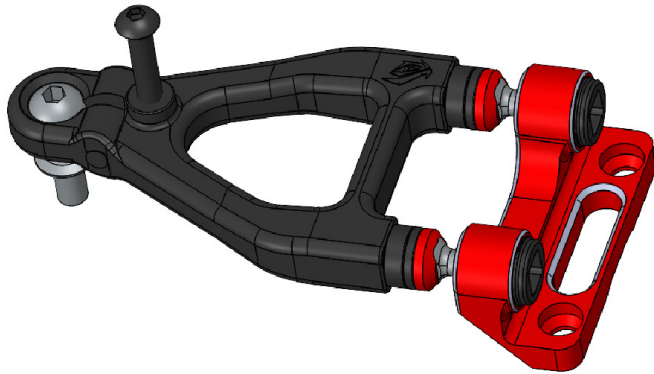
x1  
M2.5x14mm  
Button Head Screw



! Suspension balls should move freely, yet have not too much play. Adjust by tightening or loosening the IRIS-41003 nuts.

## 4.2

### FRONT UPPER ARMS ASSEMBLED

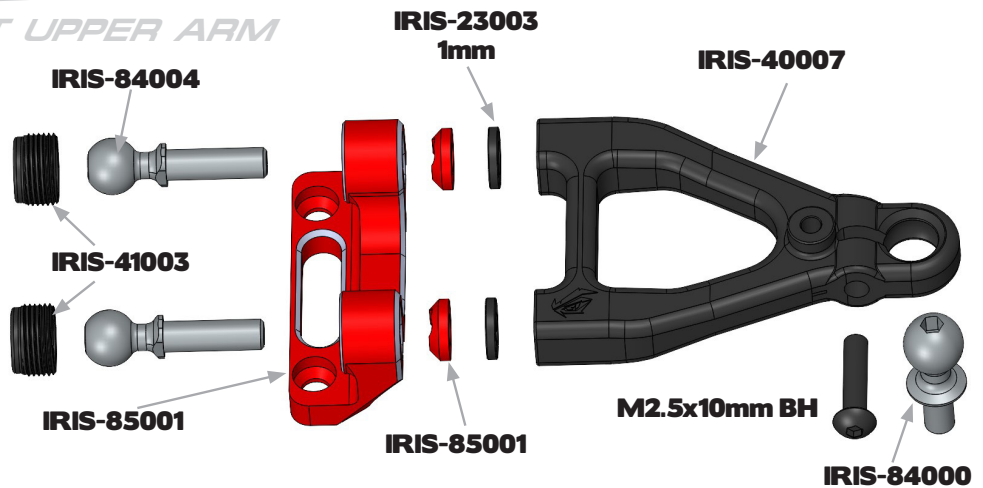


💡 IRIS icon always in rear position on front suspension arms.

## 4.3

### REAR LEFT UPPER ARM

x1  
M2.5x10mm  
Button Head Screw



! Suspension balls should move freely, yet have not too much play. Adjust by tightening or loosening the IRIS-41003 nuts.

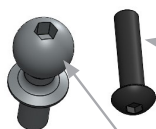


Suspension balls should move freely, yet have not too much play. Adjust by tightening or loosening the IRIS-41003 nuts.

**IRIS-40007**



**M2.5x10mm BH**

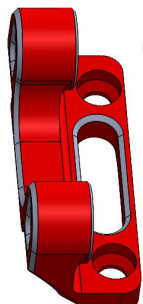


**IRIS-84000**

**IRIS-23003**  
1mm



**IRIS-85001**

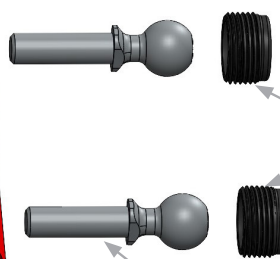


## REAR RIGHT UPPER ARM

**4.3**

**x1**  
M2.5x10mm  
Button Head Screw

**IRIS-41003**



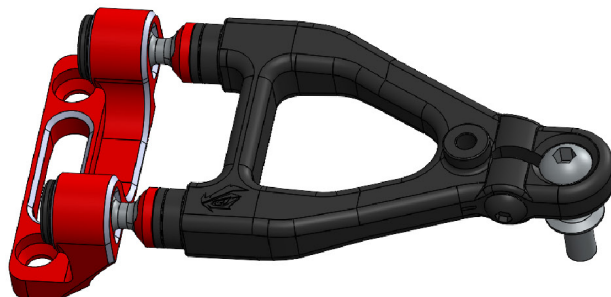
**IRIS-84004**



IRIS icon always in front position on rear suspension arms.

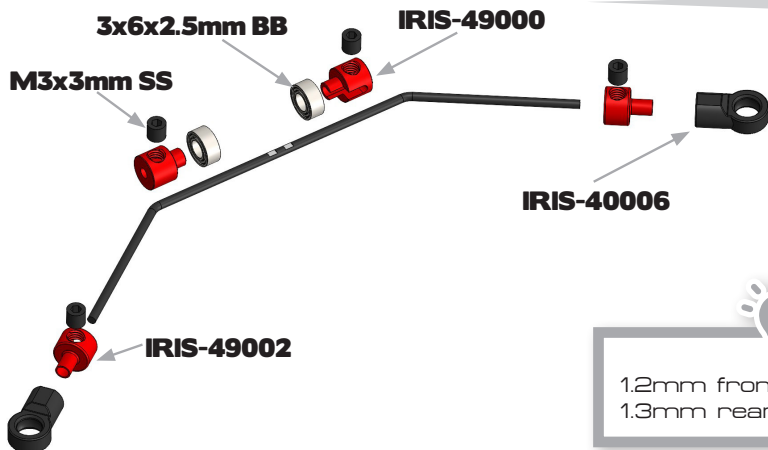
## REAR UPPER ARMS ASSEMBLED

**4.3**



**4.4**

## ANTI-ROLL BAR



**x8**  
M3x3mm  
Set Screw

**x4**  
3x6x2.5mm  
Ball Bearing



1.2mm front anti-roll bar  
1.3mm rear anti-roll bar



Build this step twice !

## 4.5

### MOUNTING OF FRONT LOWER ARMS

x2  
M3x3mm  
Set Screw

Build Step 4.1

IRIS-41000



Use a 3.0mm arm reamer to increase the insert hole size until the hinge pin moves freely.

IRIS-40007

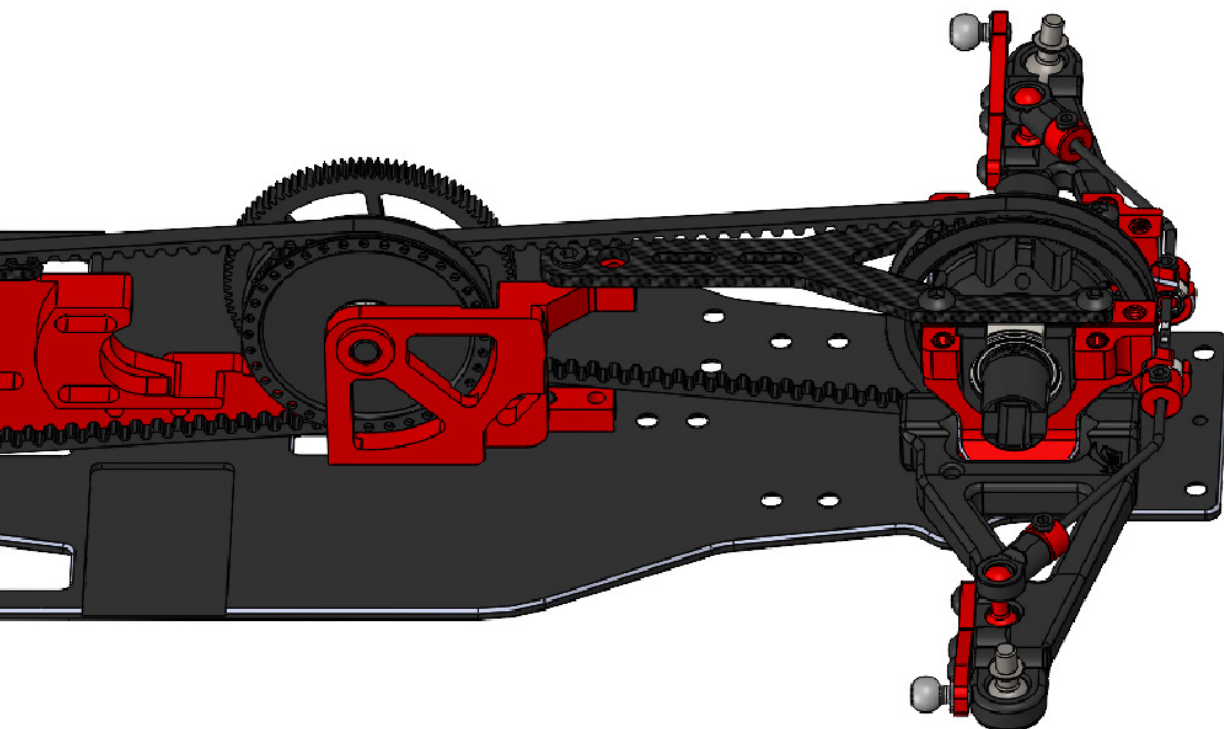
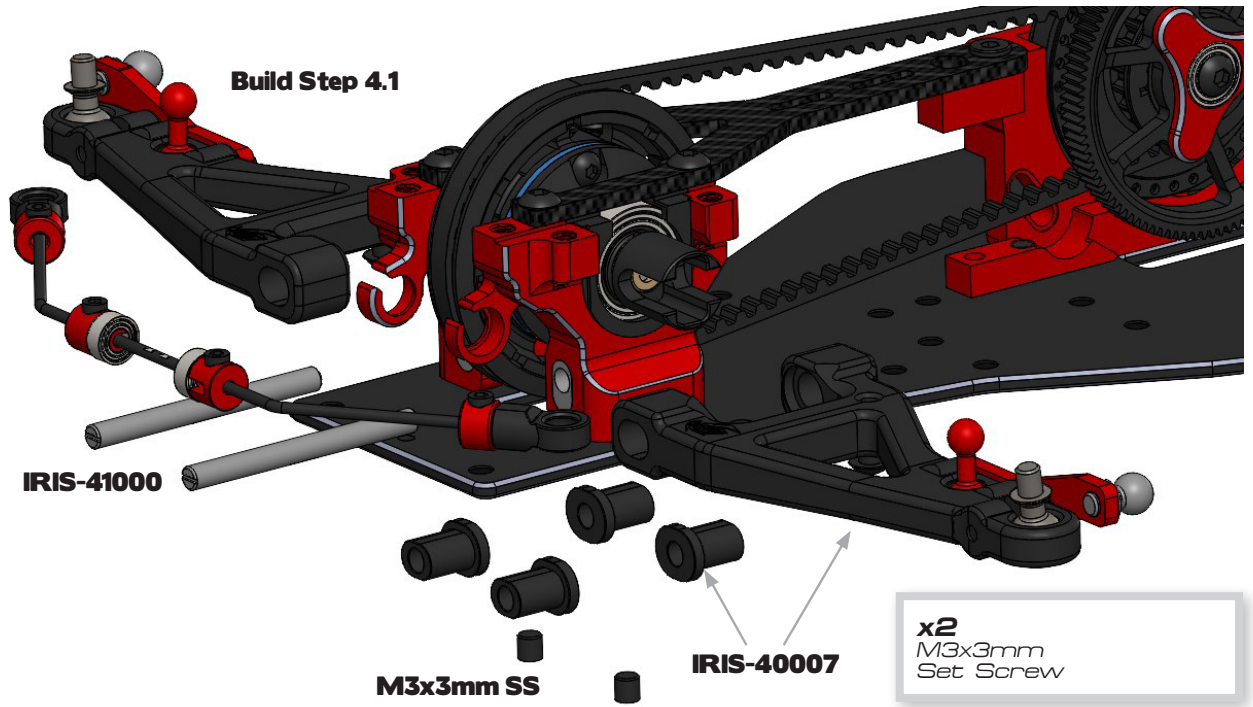
M3x3mm SS

## 4.5

### LOWER ARMS MOUNTED

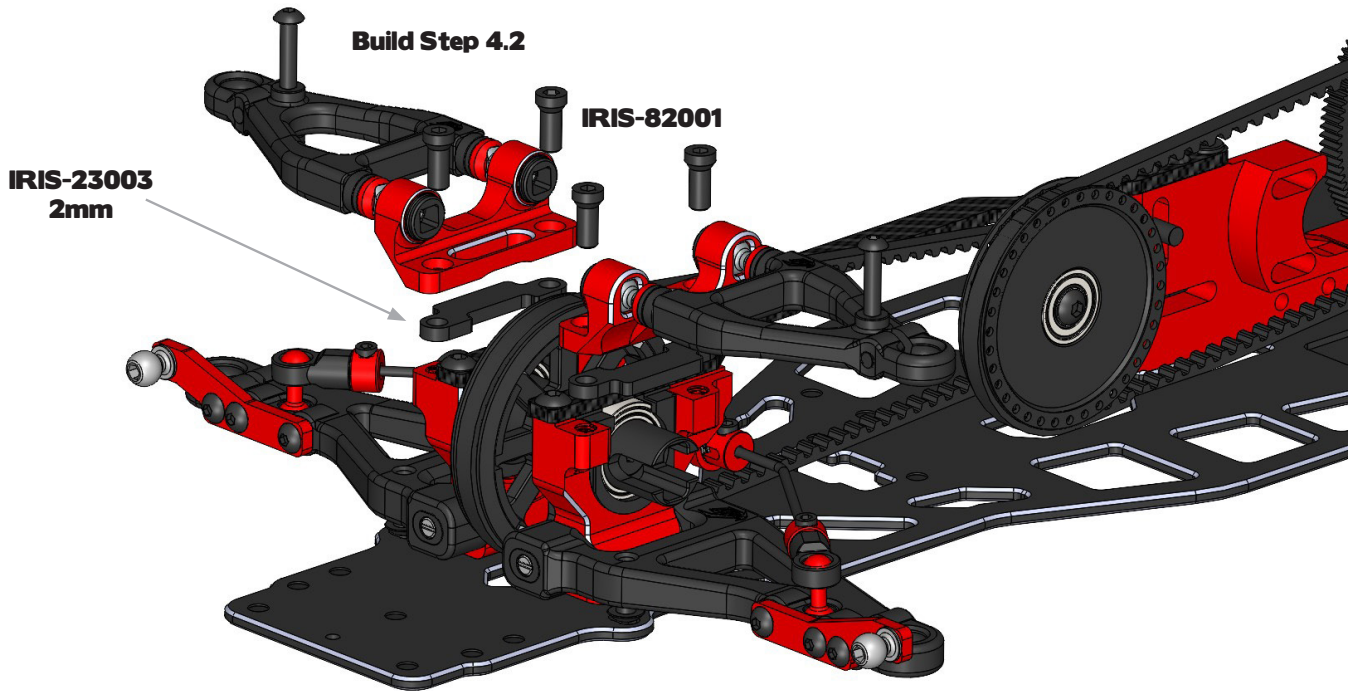
4.5

MOUNTING OF REAR LOWER ARMS



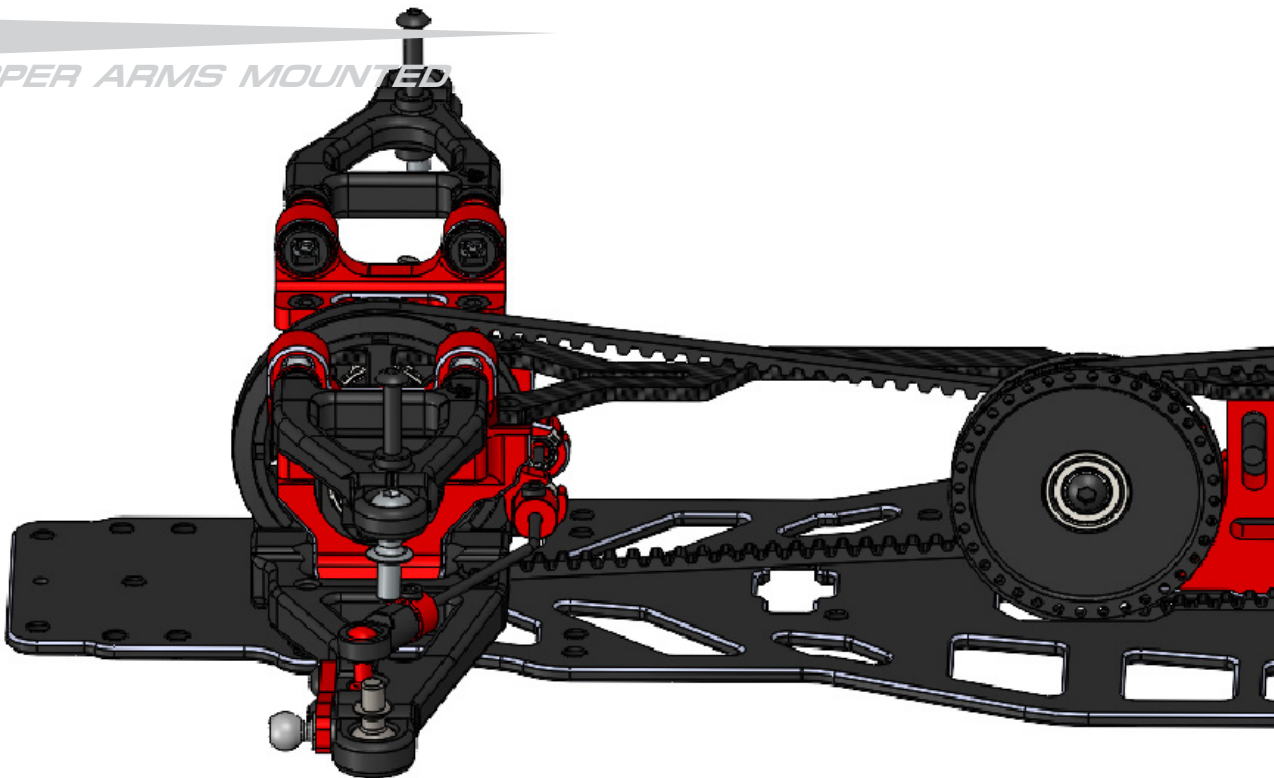
## 4.6

### MOUNTING OF FRONT UPPER ARMS



## 4.6

### UPPER ARMS MOUNTED





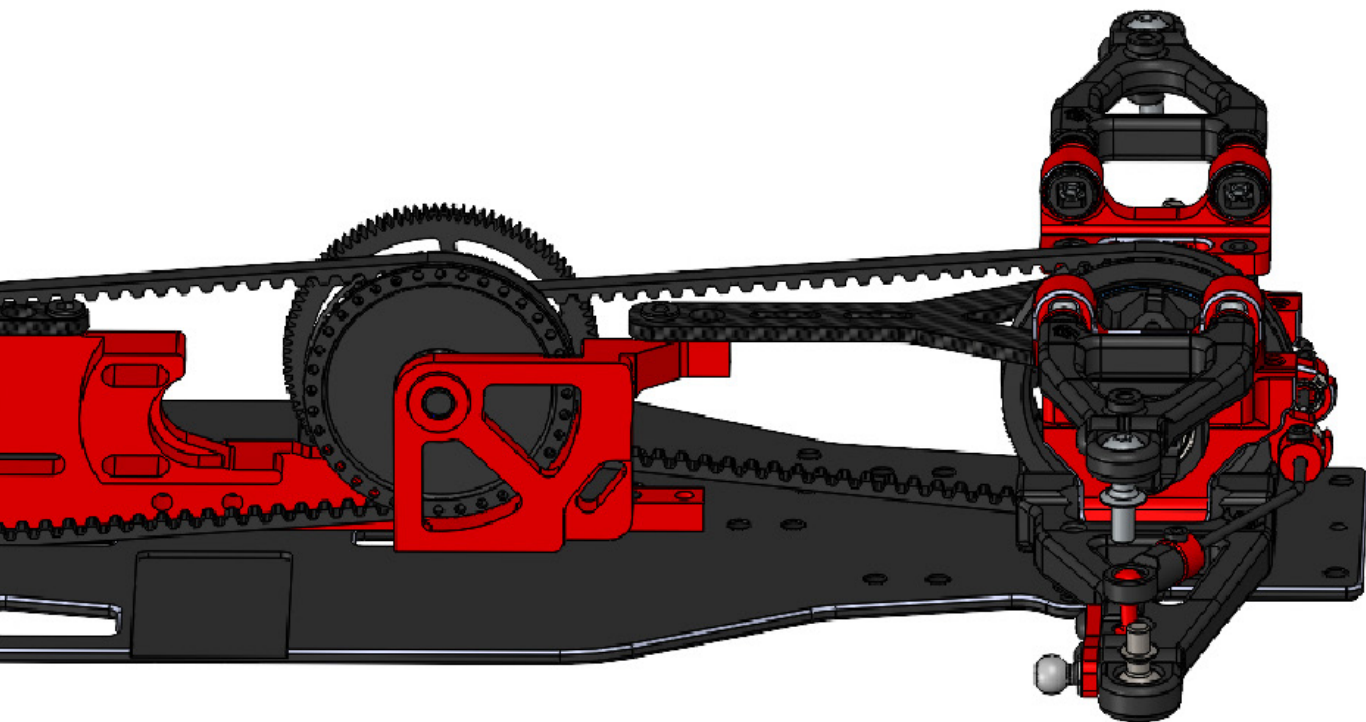
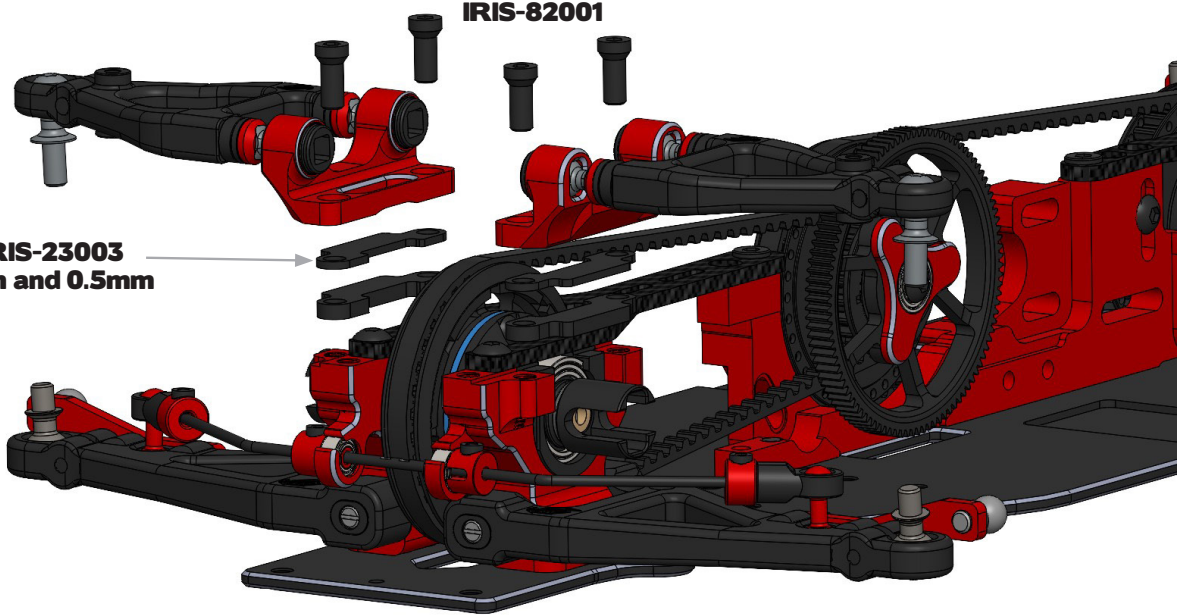
4.6

MOUNTING OF REAR UPPER ARMS

Build Step 4.3

IRIS-23003  
1mm and 0.5mm

IRIS-82001



## 5.1

### FRONT DRIVESHAFT

**x2**  
M3x3mm  
Set Screw

**x2**  
2x4x1.5mm  
Ball Bearing



Build this step twice !



## 5.1

### FRONT DRIVESHAFT



## 5.2

### REAR DRIVESHAFT

**x1**  
M3x3mm  
Set Screw

**x2**  
2x4x1.5mm  
Ball Bearing



Build this step twice !



5.2

REAR DRIVESHAFT



6.1

STEERING KNUCKLE FRONT L+R



  
Build left and right version.

- x4**  
M3x6mm  
Button Head Screw
- x2**  
M2.5x8mm  
Socket Head Screw
- x4**  
6x10x3mm  
Ball Bearing

Build Step 5.1

6.1

STEERING KNUCKLE FRONT L+R



## 6.2

### STEERING KNUCKLE REAR L+R

**x4**  
M3x6mm  
Button Head Screw

**x2**  
M2.5x8mm  
Socket Head Screw

**x4**  
6x10x3mm  
Ball Bearing



  
Build left and right version.

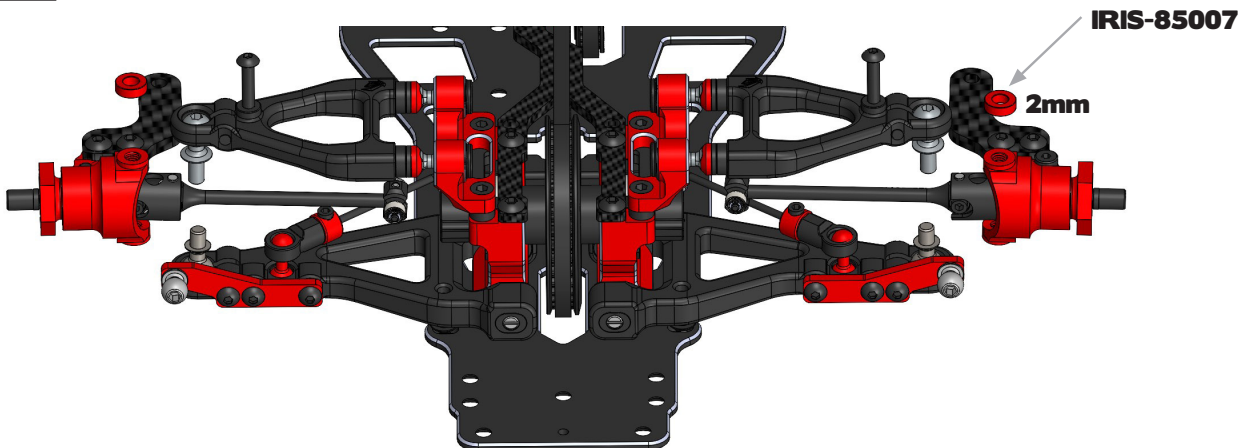
## 6.2

### STEERING KNUCKLE REAR L+R



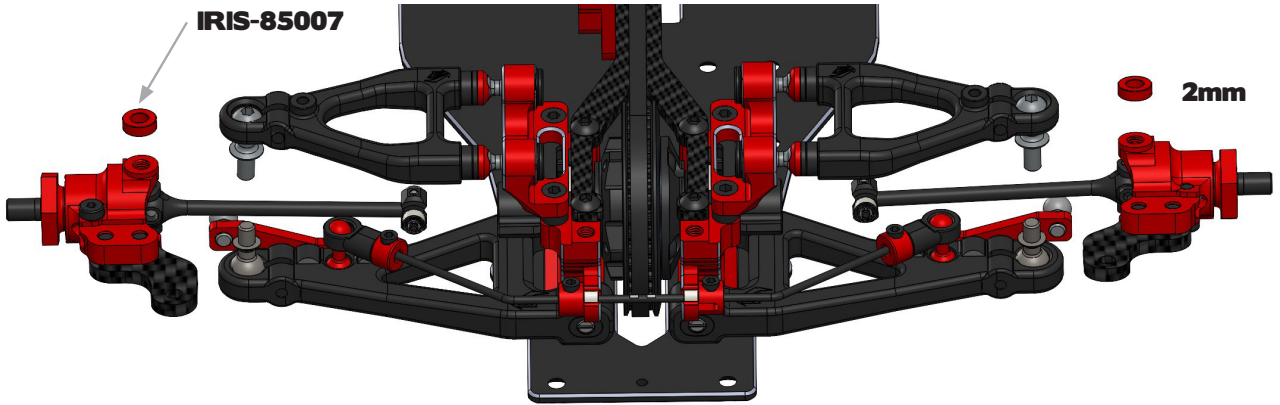
## 6.3

### MOUNTING OF STEERING KNUCKLES



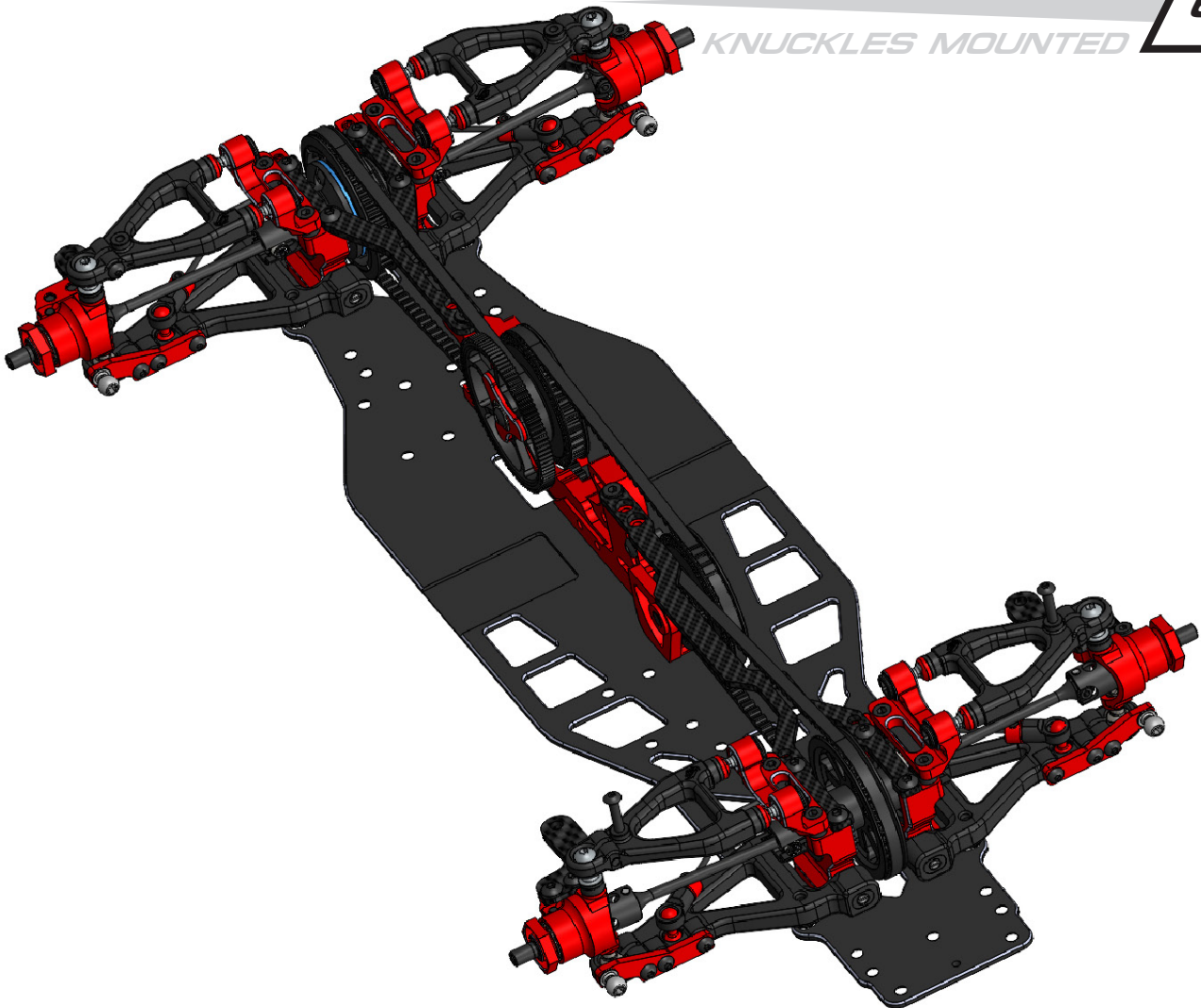
6.3

MOUNTING OF REAR KNUCKLES



6.3

KNUCKLES MOUNTED



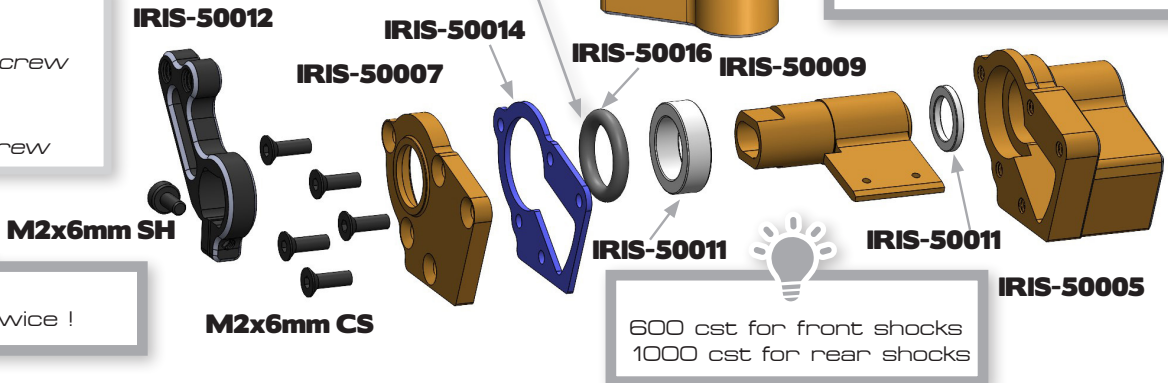
## 7.1

### SHOCKS LEFT

- x10 M2x6mm Counter Sunk Screw
- x2 M2x6mm Socket Head Screw

Lubricate using RUDDOG Red Stuff Grease or similar.

Insert guide shim and fill with silicone oil. Afterwards insert piston and complete shock build.



Build this step twice !

600 cst for front shocks  
1000 cst for rear shocks

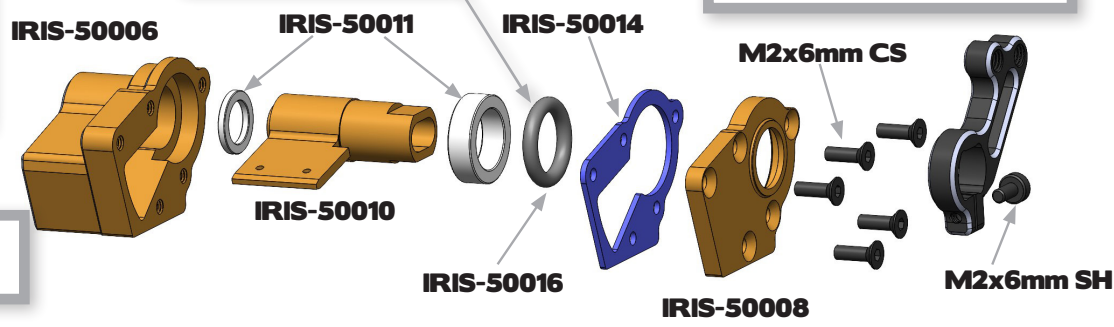
## 7.2

### SHOCKS RIGHT

- x10 M2x6mm Counter Sunk Screw
- x2 M2x6mm Socket Head Screw

Lubricate using RUDDOG Red Stuff Grease or similar.

Insert guide shim and fill with silicone oil. Afterwards insert piston and complete shock build.

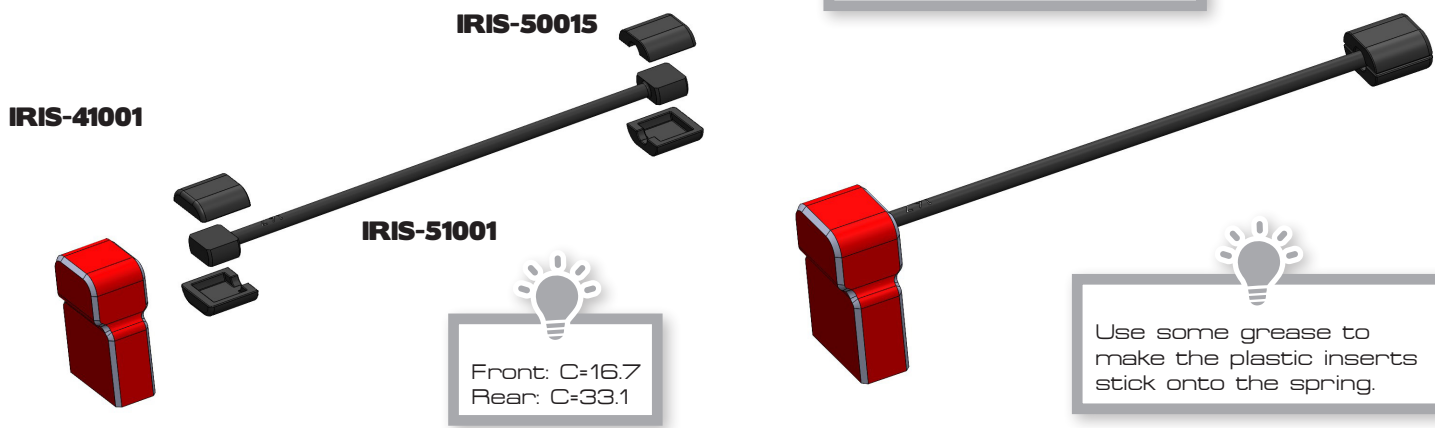


Build this step twice !

## 7.3

### SPRING MOUNTS FRONT

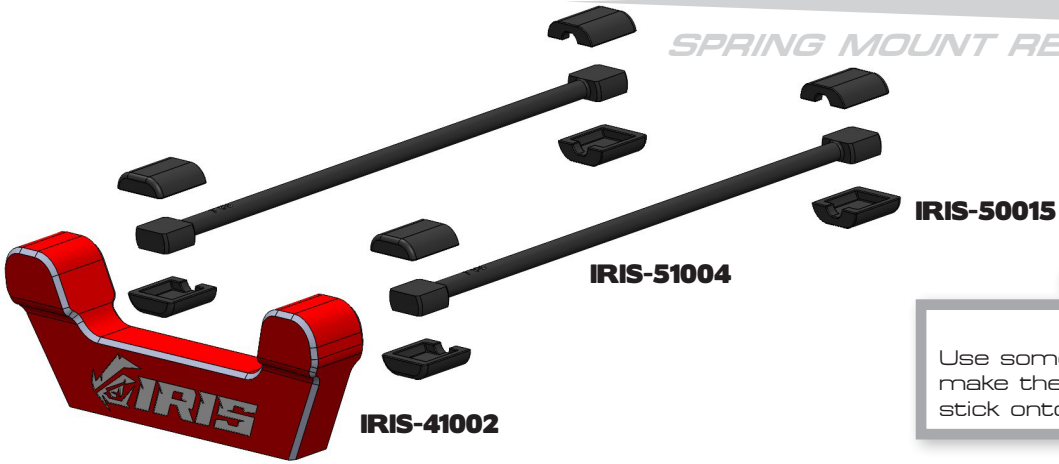
Build this step twice !



Use some grease to make the plastic inserts stick onto the spring.

## 7.4

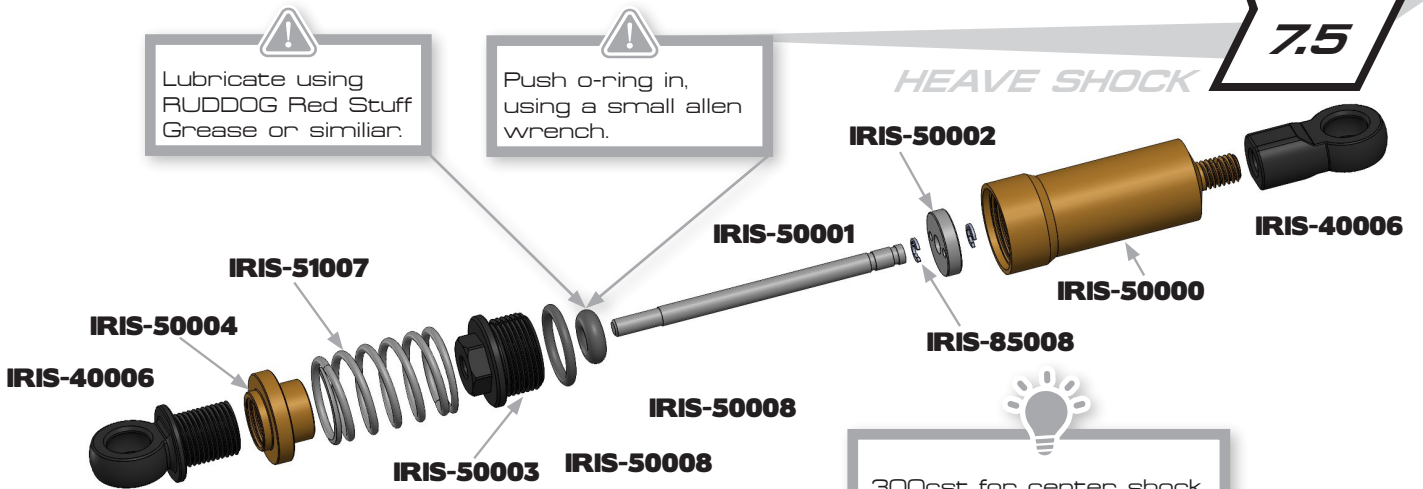
### SPRING MOUNT REAR



Use some grease to make the plastic inserts stick onto the spring.

## 7.5

### HEAVE SHOCK



Lubricate using RUDDOG Red Stuff Grease or similar.

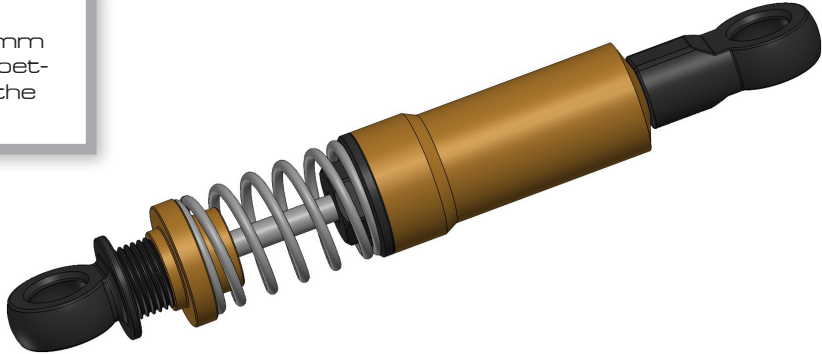
Push o-ring in, using a small allen wrench.

300cst for center shock

## 7.5

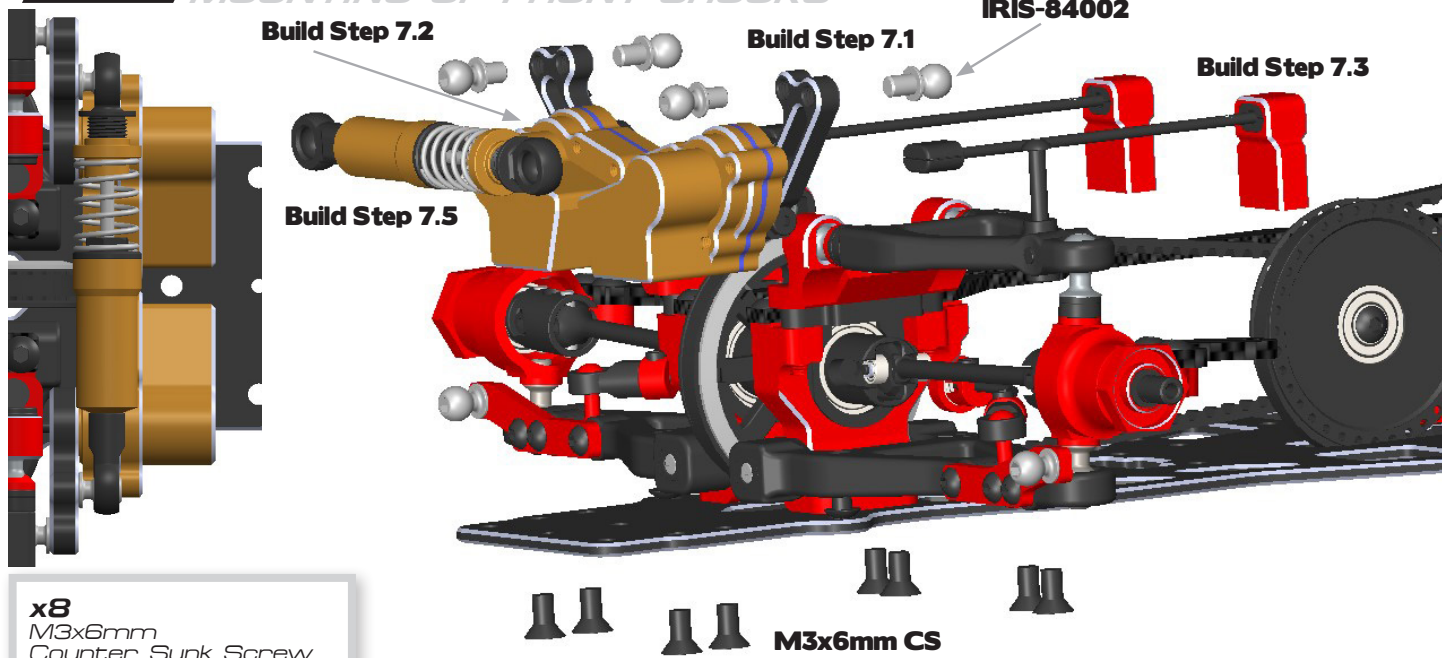
### HEAVE SHOCK

Starting point is 3mm preload measured between the nut and the ball cup.



## 7.6

### MOUNTING OF FRONT SHOCKS



## 7.6

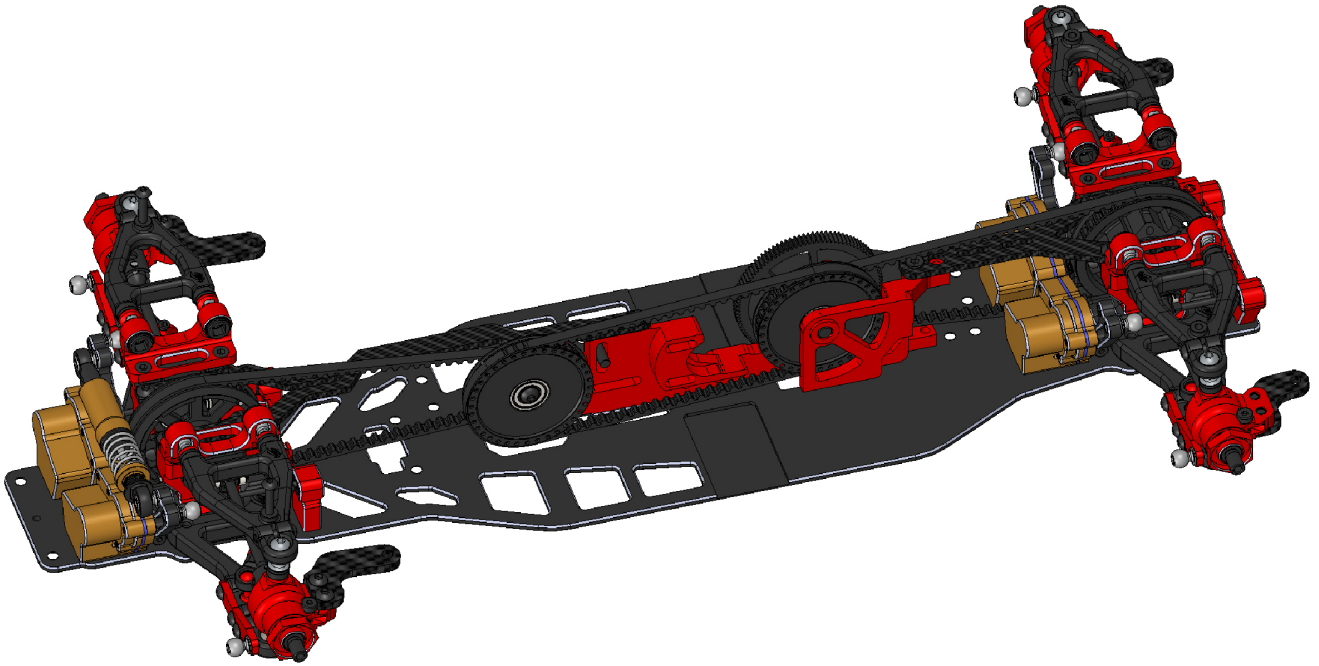
### MOUNTING OF REAR SHOCKS






## 7.6


### SHOCKS MOUNTED





## 8.1


### STEERING SYSTEM


**IRIS-84002** 


**M3x6mm BH** 

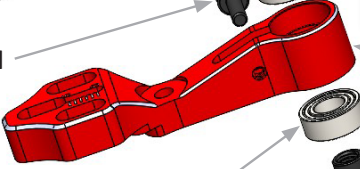
**M2x6mm SH** 

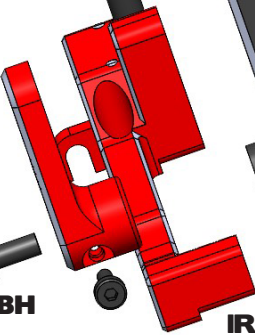
**IRIS-21008** 


**4x8x3mm BB** 


**IRIS-84002** 


**M3x6mm BH** 

**IRIS-21007** 

**IRIS-21006** 

**M3x6mm BH** 

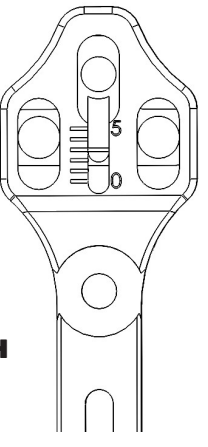
**M3x6mm BH** 


**M3x6mm BH** 


**x6**  
M3x6mm  
Button Head Screw

**x1**  
M2x8mm  
Socket Head Screw

**Standard Setting**



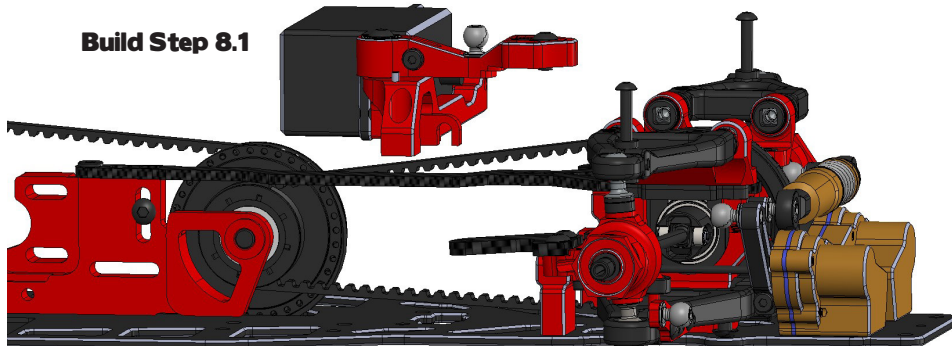
 Servo is not included. We recommend the RUDDOG Racing RCL1706 servo.

 Servo Horn is not included. We recommend:  
IRIS-73000 | 25T Spline  
IRIS-73001 | 23T Spline

## 8.2

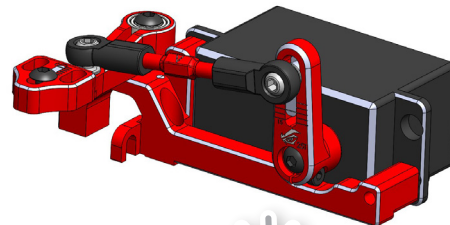
### MOUNT STEERING ON CHASSIS

#### Build Step 8.1



M3x6mm

x2  
M3x6mm  
Counter Sunk Screw



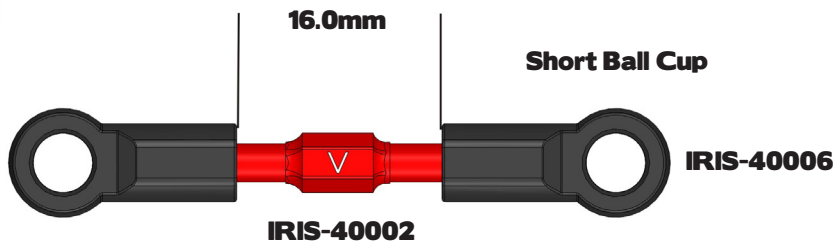
Clip on servo link from Build Step 9.1 onto the servo.

## 9.1

### SHOCK AND SERVO LINKS



Build this step five times!

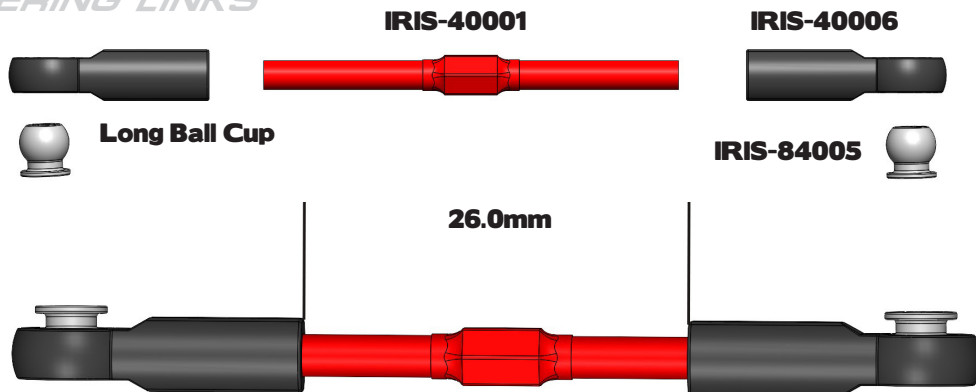


## 9.2

### FRONT STEERING LINKS

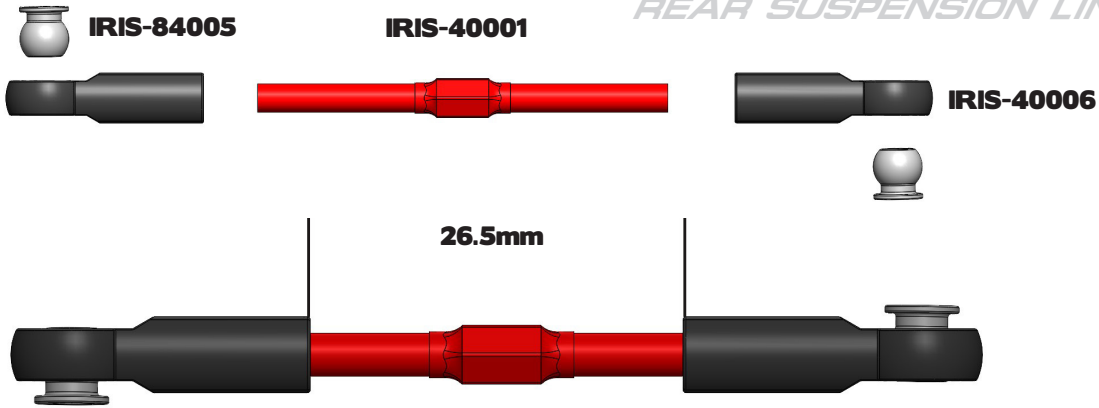


Build this step twice!



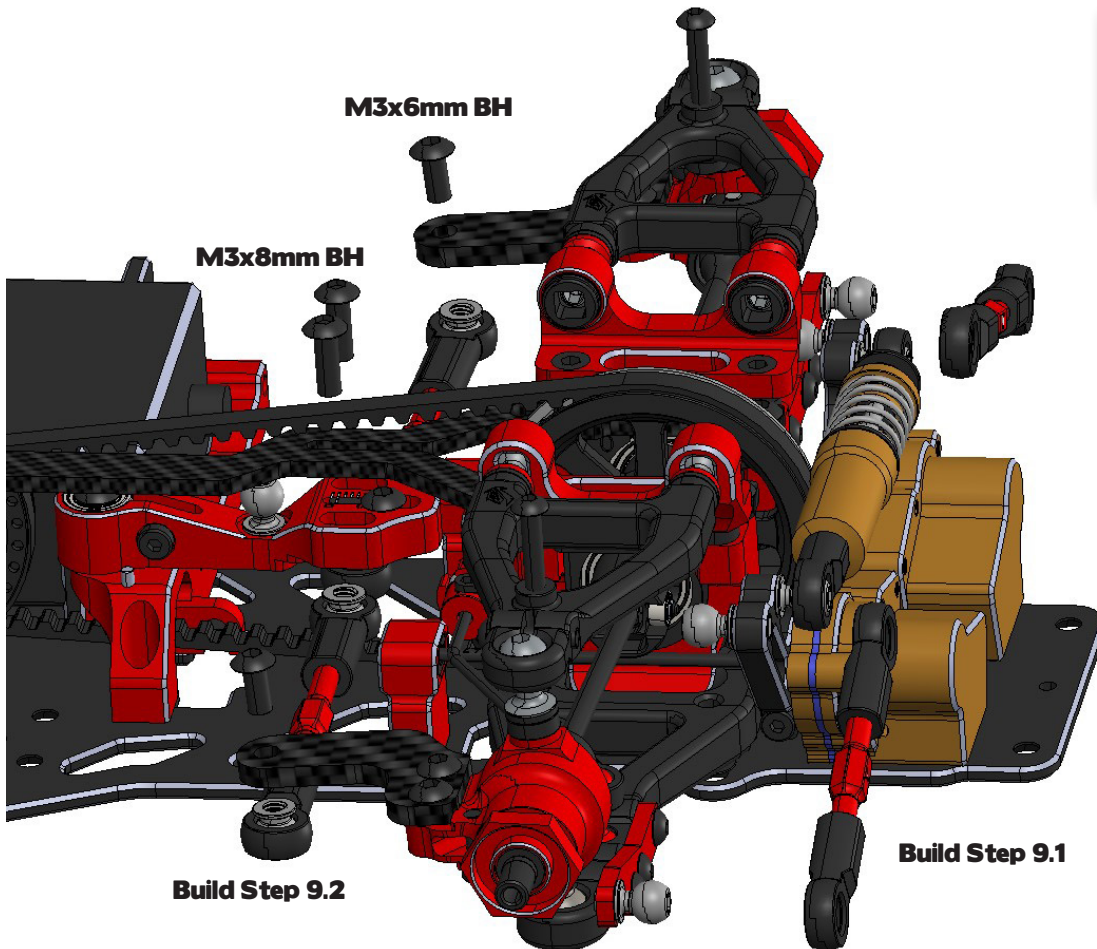
## 9.2

### REAR SUSPENSION LINKS



## 9.3

### MOUNTING OF FRONT LINKS

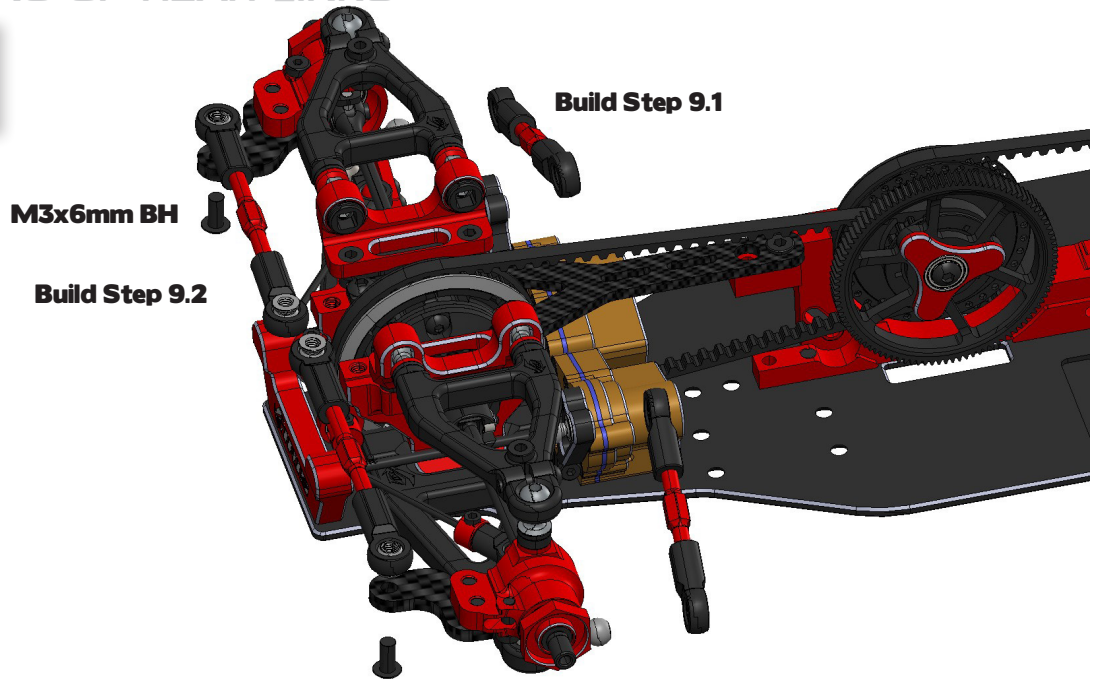


- x2  
M3x6mm  
Button Head Screw
- x2  
M3x8mm  
Button Head Screw

## 9.3

### MOUNTING OF REAR LINKS

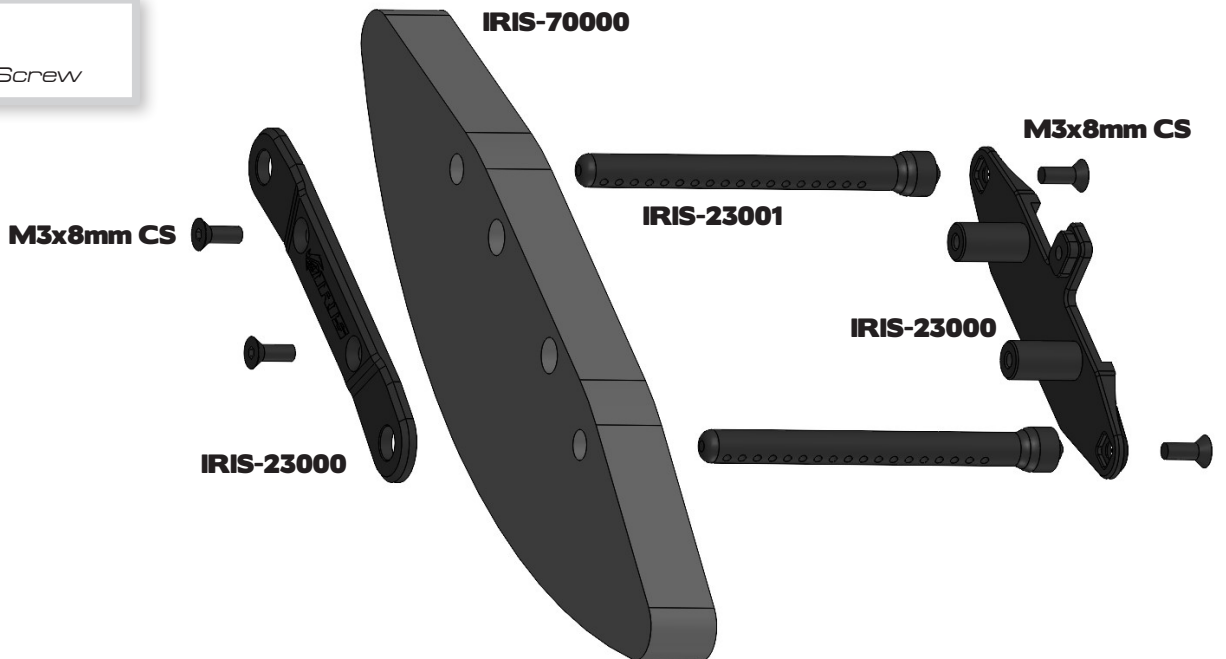
x2  
M3x6mm  
Button Head Screw



## 10.1

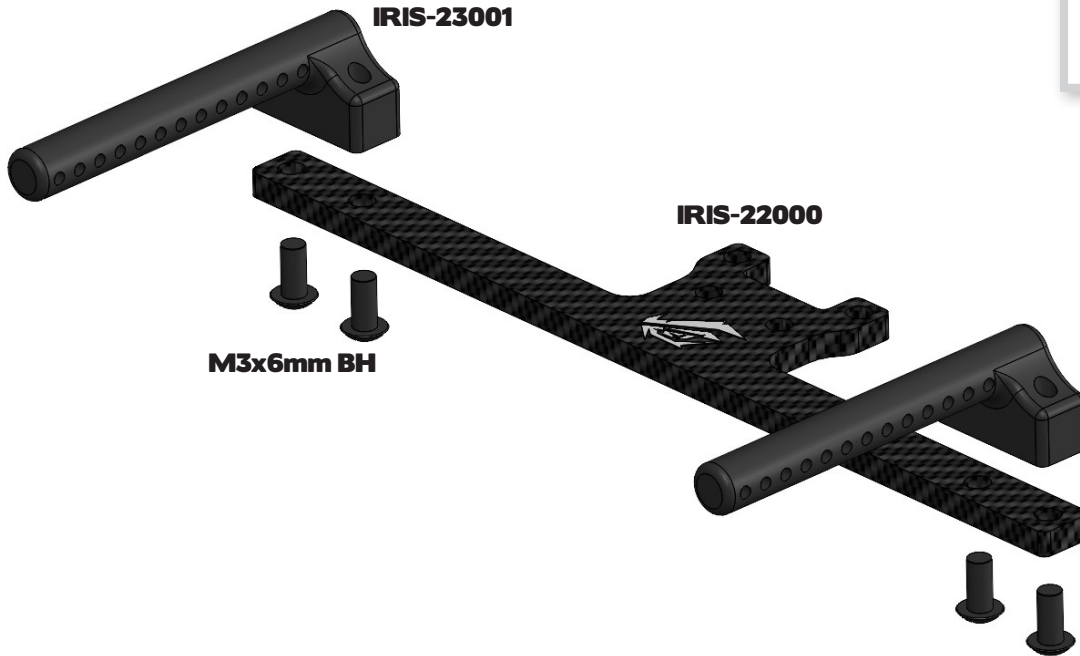
### FRONT BUMPER

x4  
M3x8mm  
Countersunk Screw



## 10.2

### REAR BODY MOUNT



**IRIS-23001**

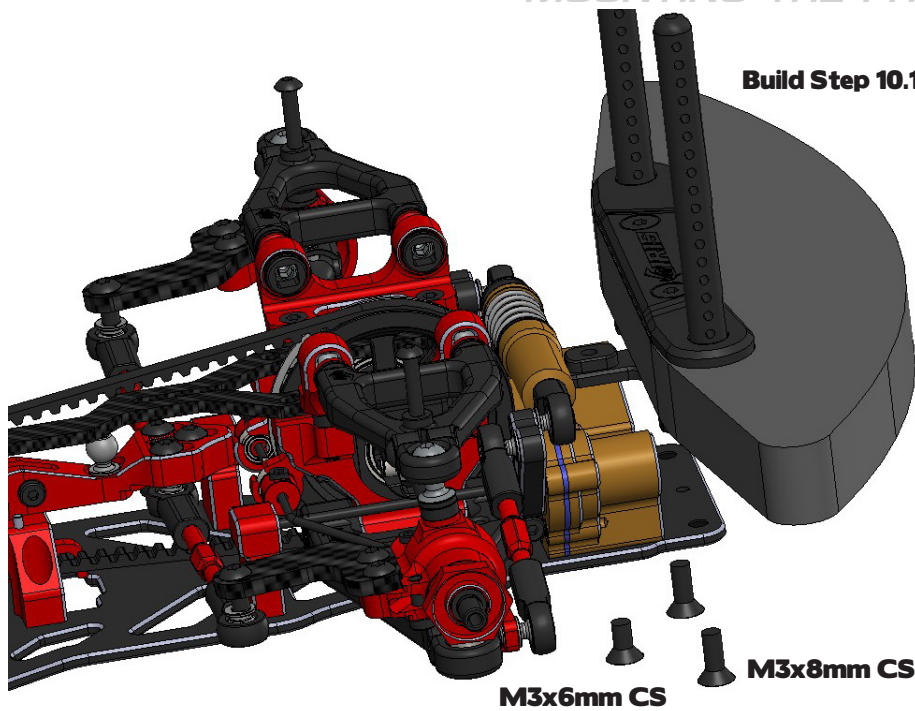
**IRIS-22000**

**M3x6mm BH**

**x4**  
M3x6mm  
Button Head Screw

## 10.3

### MOUNTING THE FRONT BUMPER



**Build Step 10.1**

**M3x6mm CS**

**M3x8mm CS**

**x1**  
M3x6mm  
Countersunk Screw

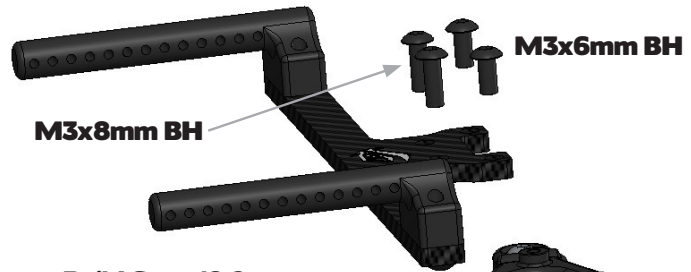
**x2**  
M3x8mm  
Countersunk Screw

## 10.3

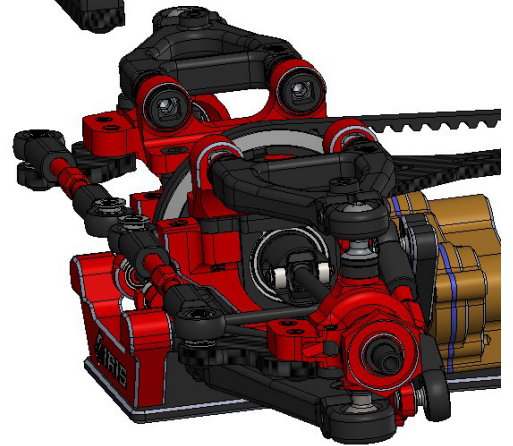
### MOUNTING THE REAR BODY MOUNT

**x2**  
M3x6mm  
Button Head Screw

**x2**  
M3x8mm  
Button Head Screw

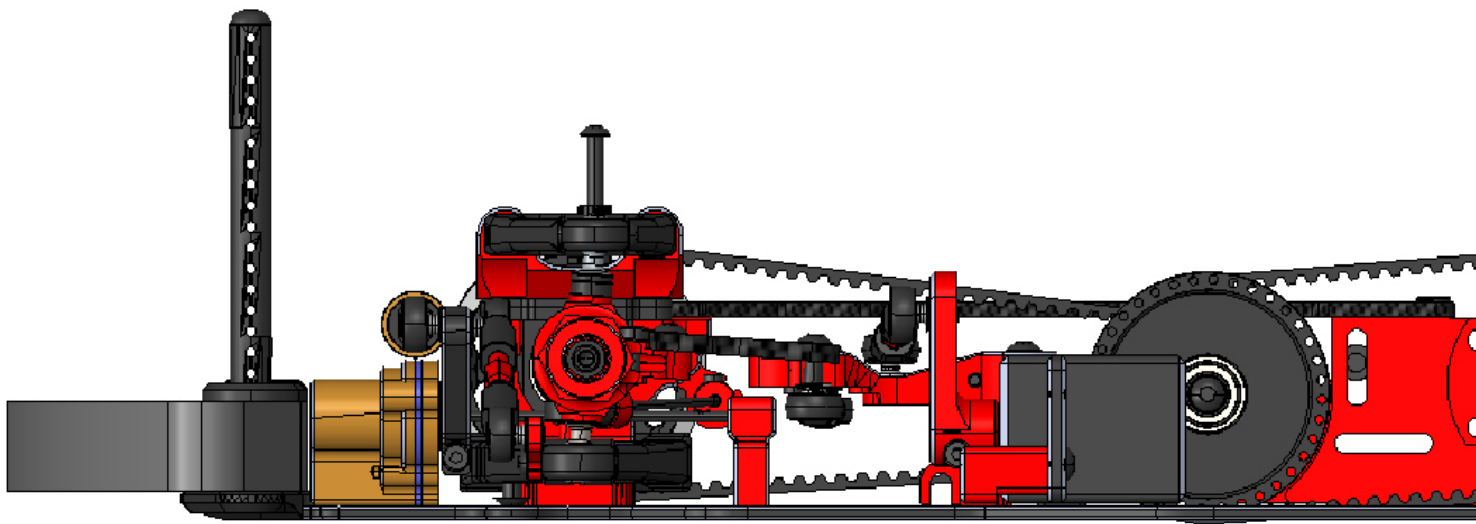


Build Step 10.2



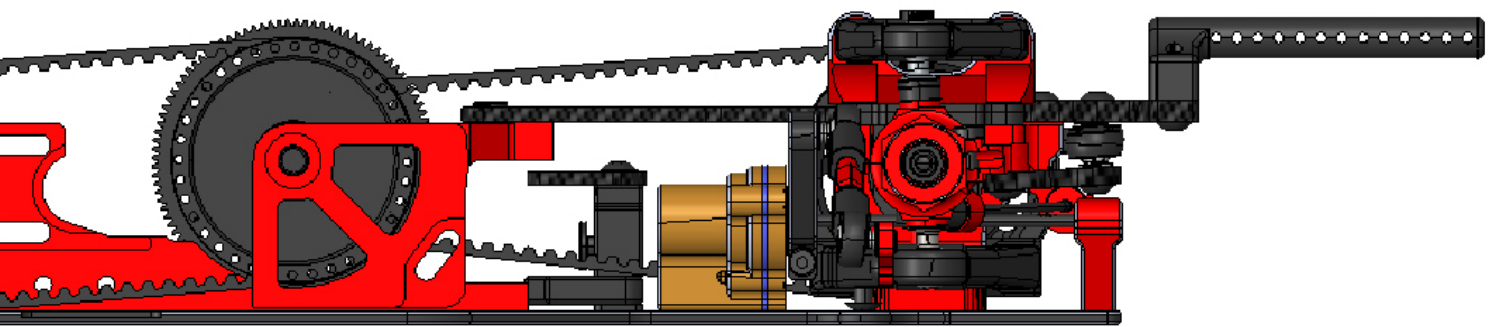
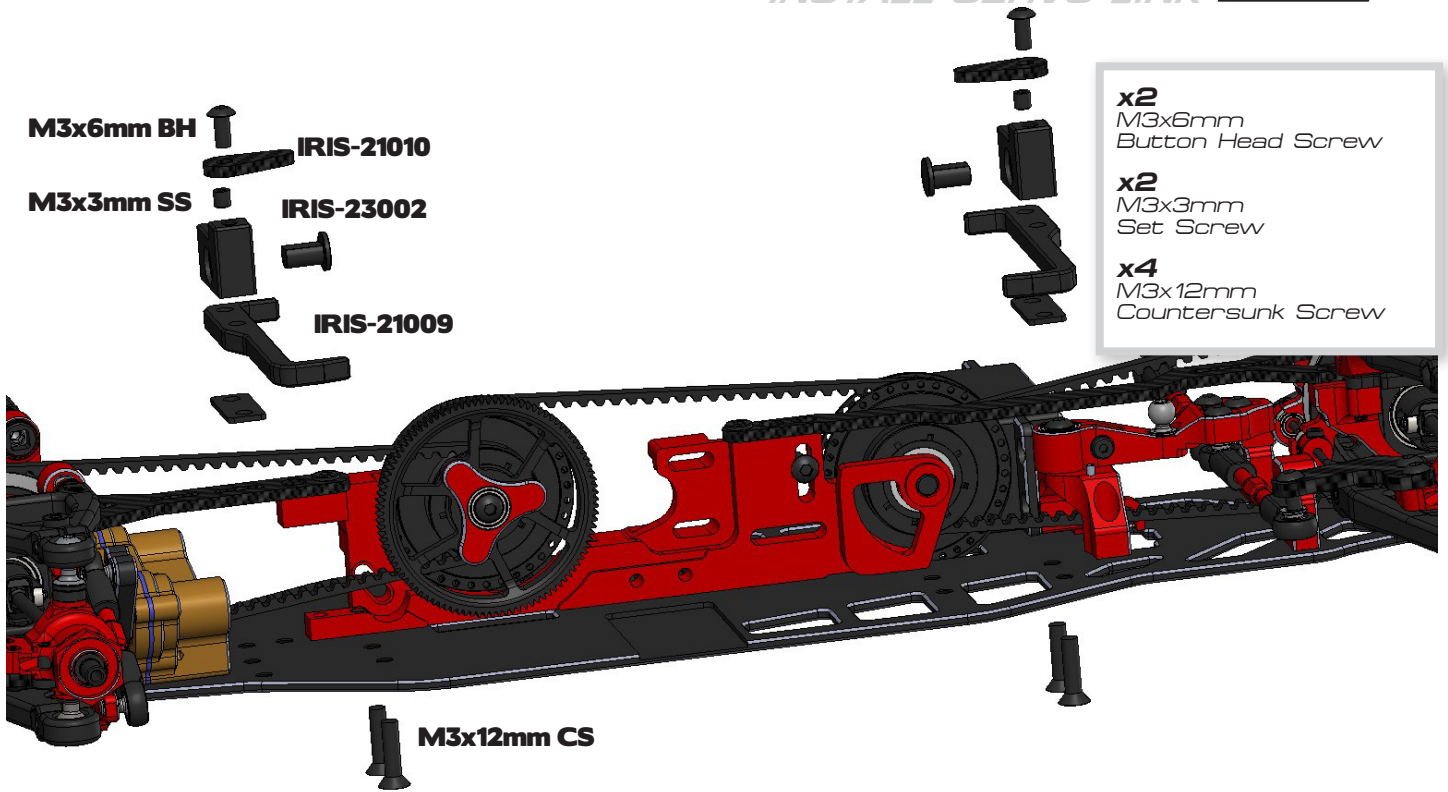
## 11

### RACE IRIS



## 10.3

### INSTALL SERVO LINK



*www.iris-racing.com*



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