

# 1/8 Scale 4WD Electric off-road Truggy

## Manual

[www.zdhobby.com](http://www.zdhobby.com)

# PIRATES 3



**BRUSHLESS**  
**#9021**

### B-10E Specifications

Length.....21.65" (550mm)  
Width .....16.93" (430mm)  
Height ..... 8.1" (205mm)  
Gear Ratio..... 12.95:1  
Ground Clearance.... 3.15" (80mm)  
Wheel Spec....  $\phi 5.32 \times 2.76$ " ( $\phi 135 \times 70$ mm)  
Wheel base.....14.49"-14.65" (368-372mm)

## ZD RACING

This manual expatiates the structure of the model. In order to better maintain and replace the spare parts, please keep and take it for reference. The user who is not familiar with the assembling, please contact with the wholesaler, nominated model shops and the Special after-sale service outlets.

The actual version is subject to the real standard. It would be varied because of different versions.

The spare parts, appearance of this model will be tiny revised and changed before totally upgrade into a new version, ZD reserve this rights, and no further notice.

## INTRODUCE

Thank you for choosing the ZD racing series products. Our company take the target of offering the top quality and best service. Through attending the competitions and repeated testing the products, constantly enhancing our experience, then further improving the design and quality control. Only for showing the great performance products. This manual including all the important matter before operating the car. We advise studying and knowing the control system before assembling or playing it. As well as the further upgrade and maintenance. Please feel free to consult our authorized dealer, nominated model shop or special after-sale service station if any question refer to the play or use. Our website is: [www.xingyaohua.com](http://www.xingyaohua.com). We are wholeheartedly for your service.

## QUALITY ASSURANCE

Our company take the fully responsibility to the quality defect during the manufacturing process. This assurance is only subject to the product only and its spare parts.

**These situation below are not included:**

The breakage caused by using, assembling or adjustment.  
The other breakage not related to the quality itself.

## IMPORTANT STATEMENT

The Model Car is not a toy. It is the casual item combine a lot of high technology products. If using improper may bring serious damage. Please read the manual detailed before using, and keep yourself safe.

**Attention:** Any operation of the Model car, the manufacturer and dealers are incapable of take the responsibility of the accidents caused by wear out or abnormal assemble.

This product is provided to those who have operation remote control model car experience or a technical personnel in the guidance of the local legal field, in has to ensure the safe and correct operation under the condition of use. Our company will not accept any operation and use the control on any performance and safety responsibility

The RC products are belong to consumable goods, if disassemble, it may cause the spare parts loss, Any use of goods caused by bad or not satisfied, will not be able to replace or return, such as in case of operation maintenance problems, the company designated national distributor model shop and special after-sale service store will provide technical guidance, and special parts supply services.



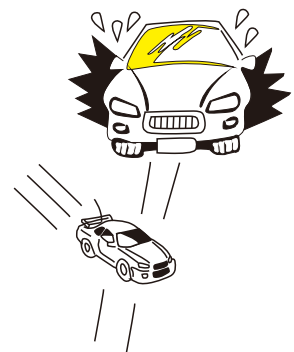
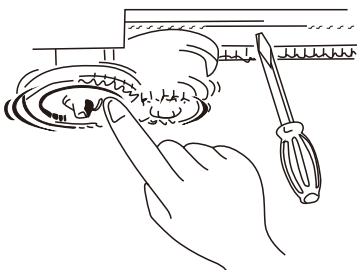
**Warning:** because of the neglect of these operating instructions, and use wrongly may cause property damage or serious injury.

**Note:** because of the neglect of these operating instructions, and use wrongly could be dangerous.

**Ban:** in any prohibited environment, do not try to operation.

## SAFETY GUIDELINES

1. Don't operation the models close to open fires or near heat source.
2. Operation must be in the open and dry site .
3. The thunderstorm weather is forbidden to operate this product.
4. Away from the high voltage cables.
5. Some of the parts will be exothermic or burning after operated.
6. Please do not use hand or foreign body contact activities of the parts before cut off the power supply, .
7. During the operation, if foreign matter or liquid get into eyes, please timely with plenty of water flush eyes, and immediately consulting professional doctor. As the body is injured, please seek immediate medical attention.
8. Keep out of the reach of children, this is not toy, strongly suggest adult supervision.
9. Placed in ventilated and dry place, do not use, take the battery out.
- 10.The product items do not diet or swallowed.



## Checking the packaging and accessories

Opened the packing box, please check the attached accessories are complete or incomplete.  
If there are omissions, please go to the seller's.

### Brushless(9021)

1



2



2.4G  
Remote control

3



Power Charger

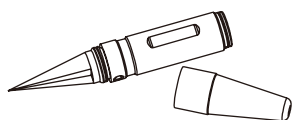
4



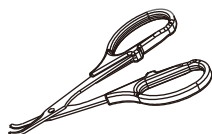
11.1V 35C 5000mAh Li-po battery



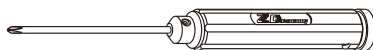
## Recommended maintenance tools(not included)



#1328  
Body Reamer



#1329  
Hobby Scissors



#1330  
3.0 Cross Wrench



#1331  
1.5 Hex Wrench



#1332  
2.0 Hex Wrench



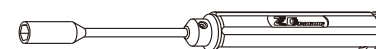
#1333  
2.5 Hex Wrench



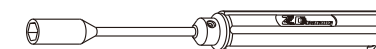
#1334  
5.0 Nut Driver



#1335  
5.5 Nut Driver



#1336  
7.0 Nut Driver



#1337  
8.0 Nut Driver

## Symbols used throughout the instruction manual



All kinds of grease  
(not included on the  
products)



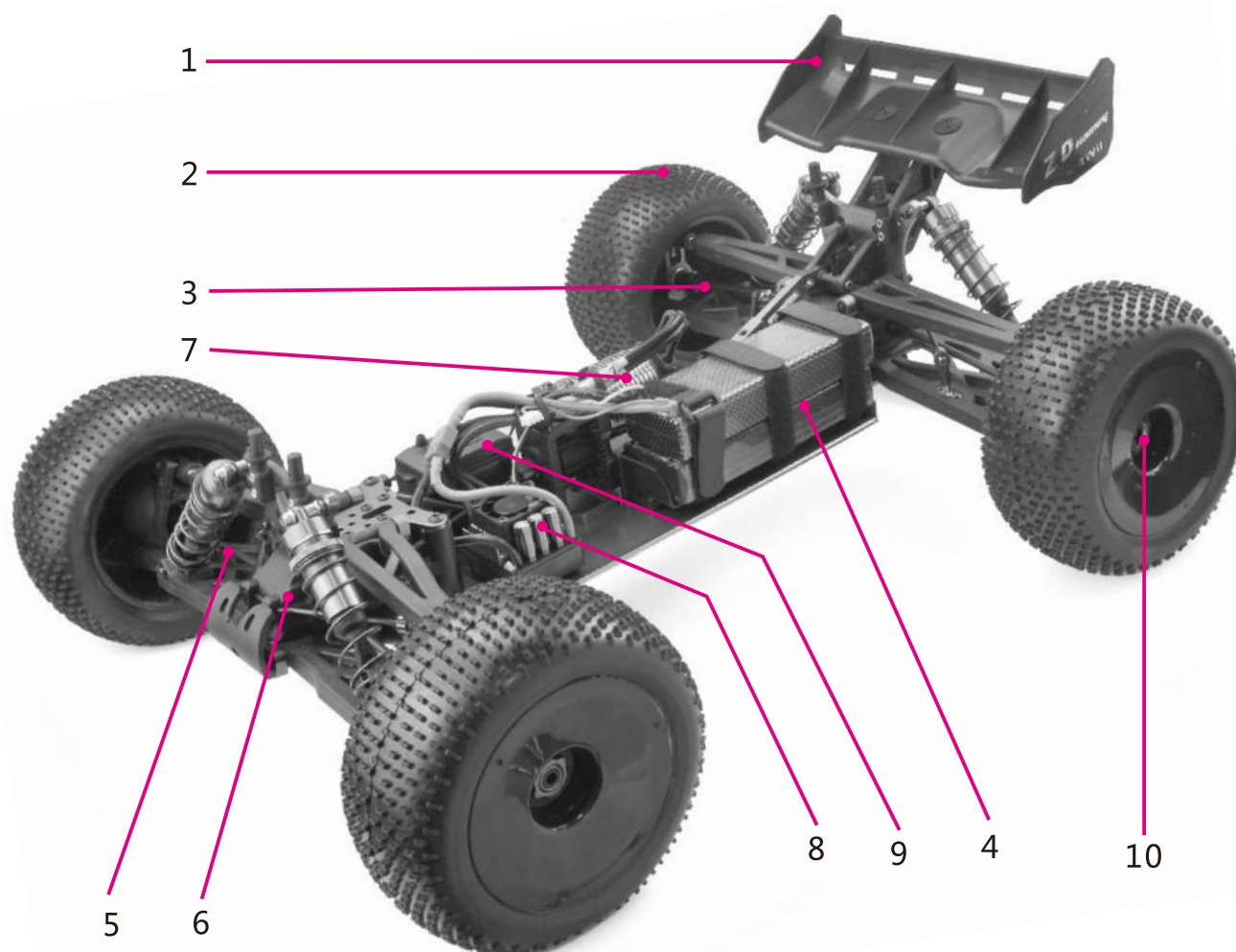
Apply CA glue  
(not included)



Assemble both  
L/R sides

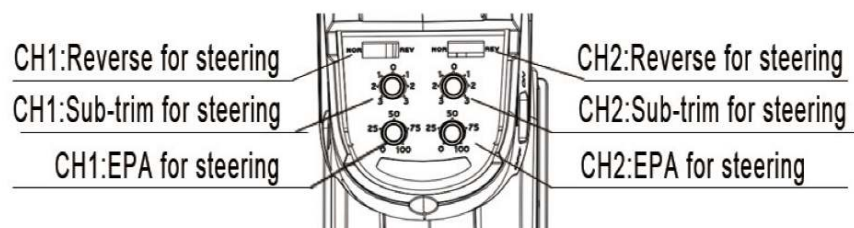
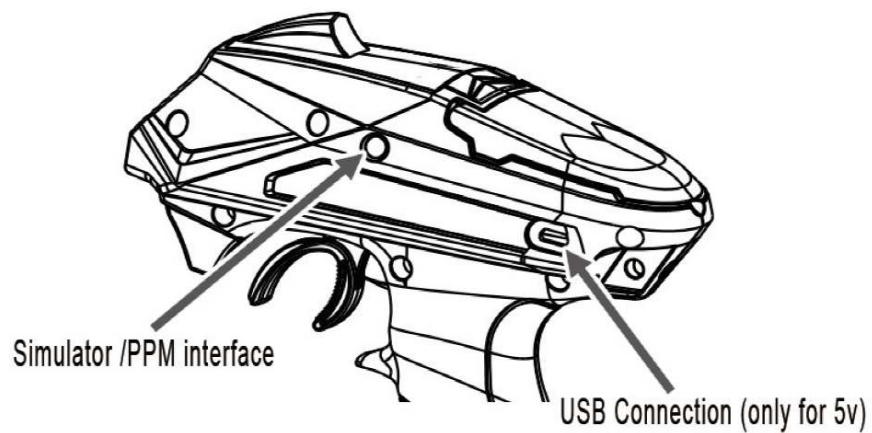
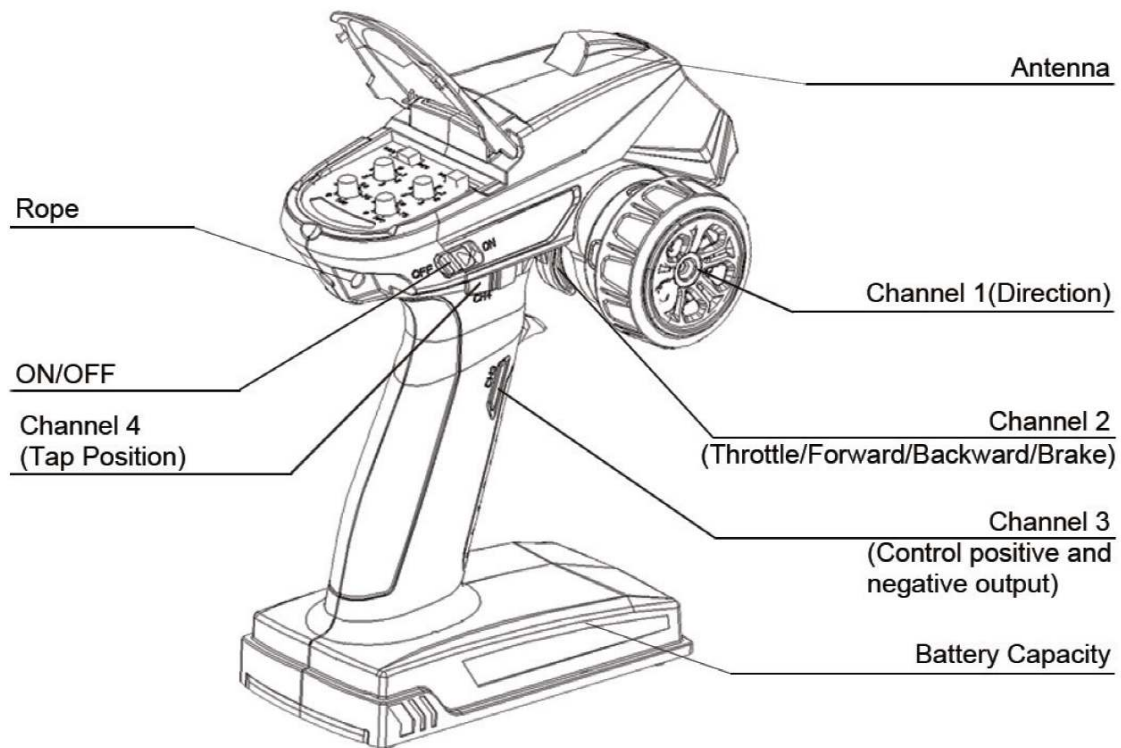


Assemble both  
F/R sides



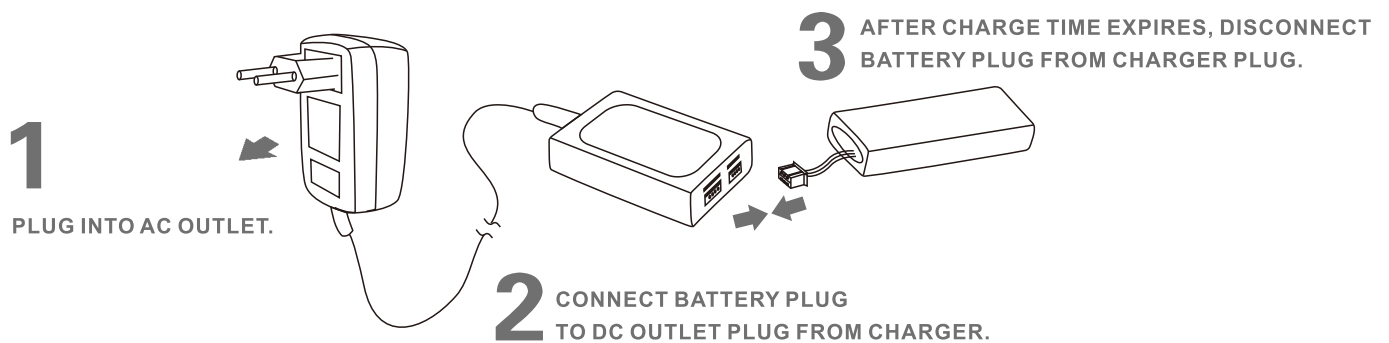
1	Tail	6	Gear Box
2	Tire	7	Brushless Motor
3	Drive Shaft	8	Brushless ESC
4	Battery	9	Receiver
5	Drive Shaft	10	Locknut

## 2.4G RC WITH 3-CHANNELS SETUP AND FAIL SAFE FUNCTION



## CHARGING THE BATTERY PACK

- A. Once the battery ready to be charged, first plug the AC quick charger into the outlet of AC power source, and then connect the battery input/output harness to the charger.
- B. Continued to monitor the battery as it is being charged. As soon as the battery is fully charged, disconnect the battery from the charger plug (Over-charging or charging incorrectly using inadequate chargers may cause the battery pack to become dangerously hot).
- C. For best results, let the battery pack cool before charging. Heat may prevent the battery pack from charging to full capacity and also decreases the performance of the battery.



## LiPo BATTERIES

Lithium Polymer (Li-Po) batteries are becoming popular for use in R/C models due to their compact size, high energy density, and high-current output. However, these types of batteries require special care and handling procedures for long life and safe operation.

**Warning:** Lithium Polymer (Li-Po) batteries are intended only for advanced users that are educated on the risks associated with Li-Po battery use. THUNDER TIGER/ACE RC does not recommend that anyone under the age of 16 use or handle Li-Po battery packs without the supervision of a knowledgeable and responsible adult.

**Important:** Do not use NiCd/Ni-MH battery chargers for Li-PO batteries. If you do not use a special charger for Li-PO battery, they will be damaged.

**Please note!** Consumers for use or installation of lipo battery in the remote control model belongs and cause any Direct or indirect damages, our company will not bear any legal liability.

## TROUBLESHOOTING

**If you have trouble starting or keeping your love car running, here's a quick checklist of what to look for first.**

Description	Problem	Solution
Car dies or slows	Speed control over heats	Let it cool and try later
Car is glitching	Car has a problem on power	Check for loose wires, dead radio batteries or loose crystals. Check motor capacitors, loose wires or crystals.
Motor is overheats	Gear mesh is too tight	Let motor cool and check recommended gearing for motor type. Reset gear mesh
No power	Battery is discharged	Charge battery Charge battery
No throttle	Motor not plugged in Motor failure No throttle, only steering	Plug motor in Replace motor A-T-L function works; turn off the vehicle first and follow the guide to turn on the radio. (Radio first, vehicle second!!!)
	Motor keeps running	Check if the throttle trim knob is in neutral position.
No steering	Servo not plugged in Locked up steering linkage Servo failure	Plug servo into ESC unit Free up steering linkage Replace servo
Reversing	Goes backwards when you pull the trigger or goes right when turning the wheel left	Check throttle / steering reversing switches on transmitter

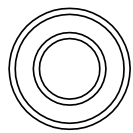
1:1 Scale



M3x12mm  
Countersunk Screw



Set Screw M4x4

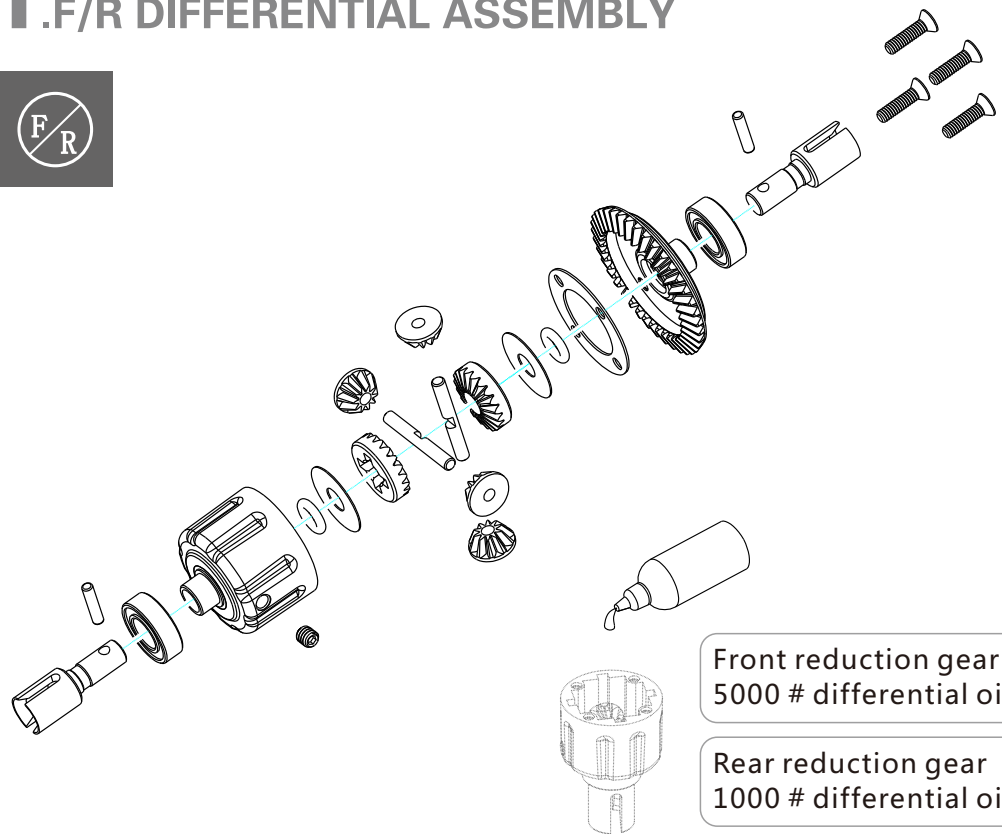


Ball bearing  $\phi 16 \times 8 \times 5$

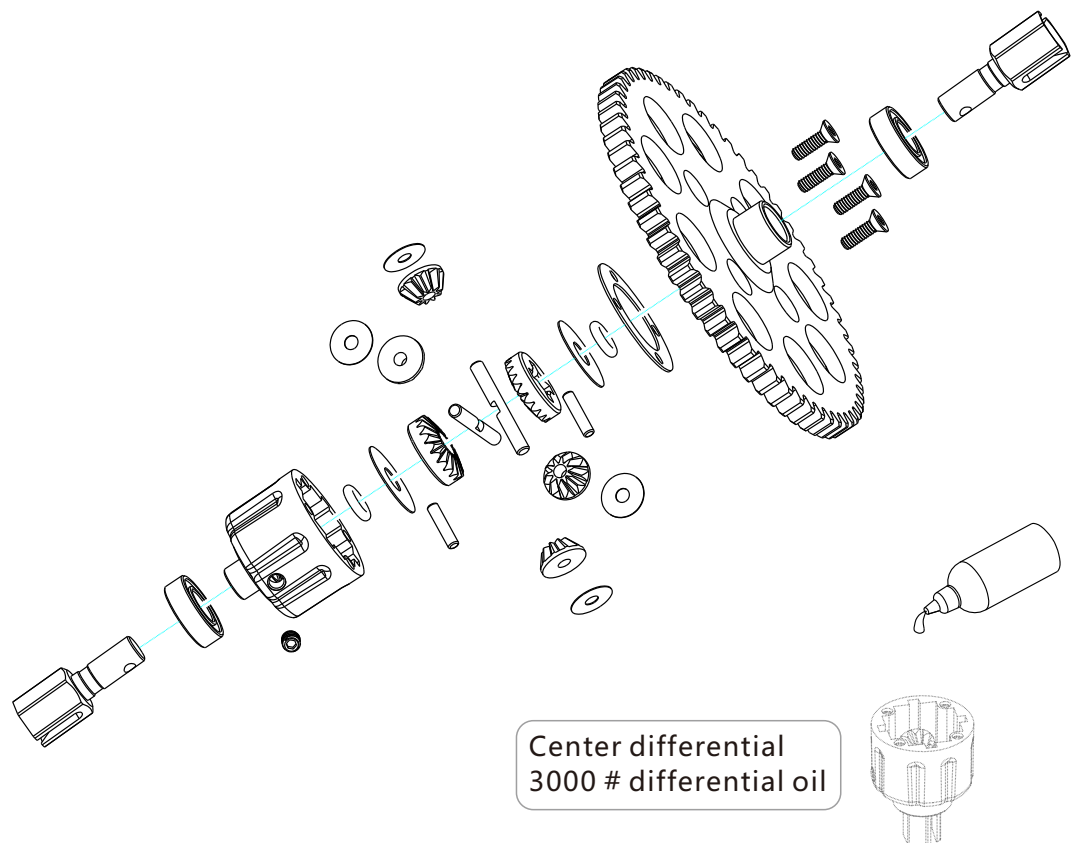


$\phi 2.5 \times 11$  Pin Set

## 1.F/R DIFFERENTIAL ASSEMBLY



## 2.CENTER DIFFERENTIAL ASSEMBLY





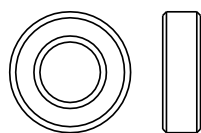
1:1 Scale



M3x12mm  
Countersunk Screw



Set Screw M5x4

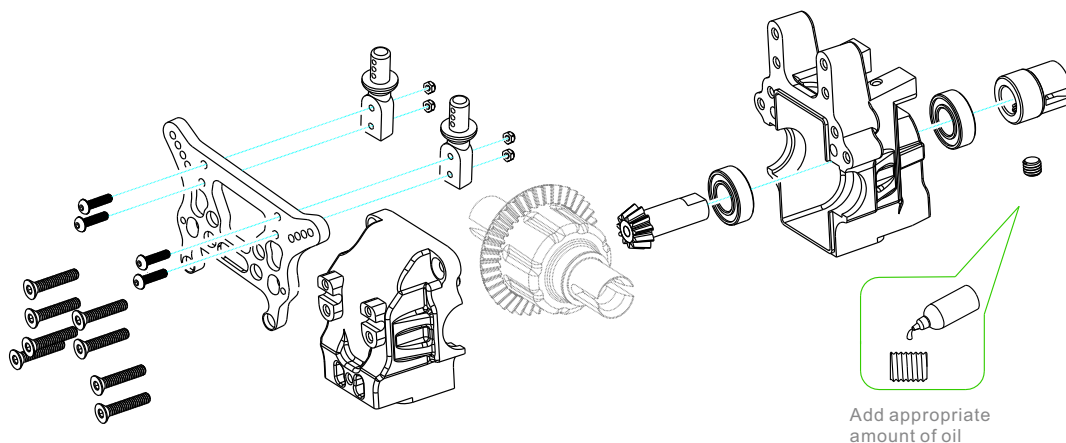


Ball bearing  $\phi 16 \times 8 \times 5$

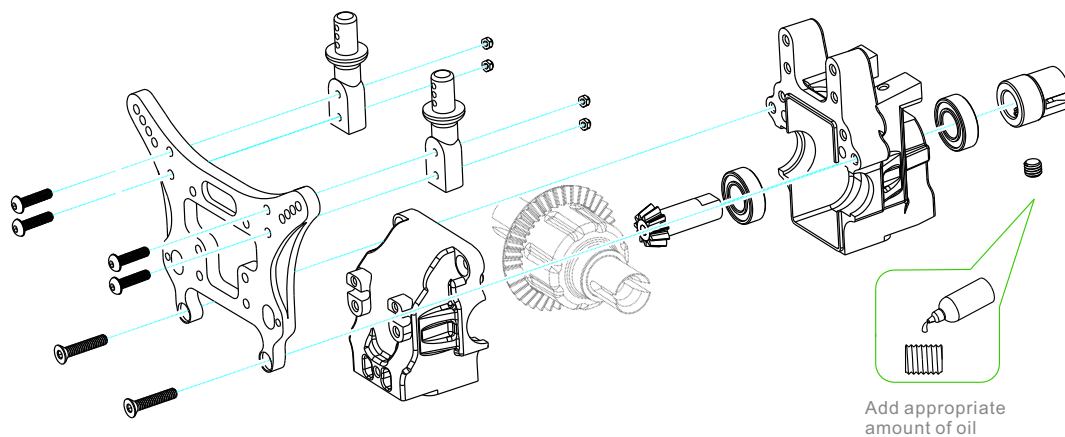


M3x12mm  
Button Head Screw

### 3.FRONT GEAR BOX ASSEMBLY



### 4.REAR GEAR BOX ASSEMBLY



1:1 Scale



Set Screw M3x4



M3x6mm  
Countersunk Screw



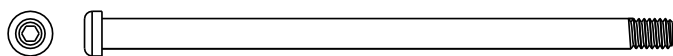
M3x12mm  
Countersunk Screw



M3x12mm  
Button Head Screw

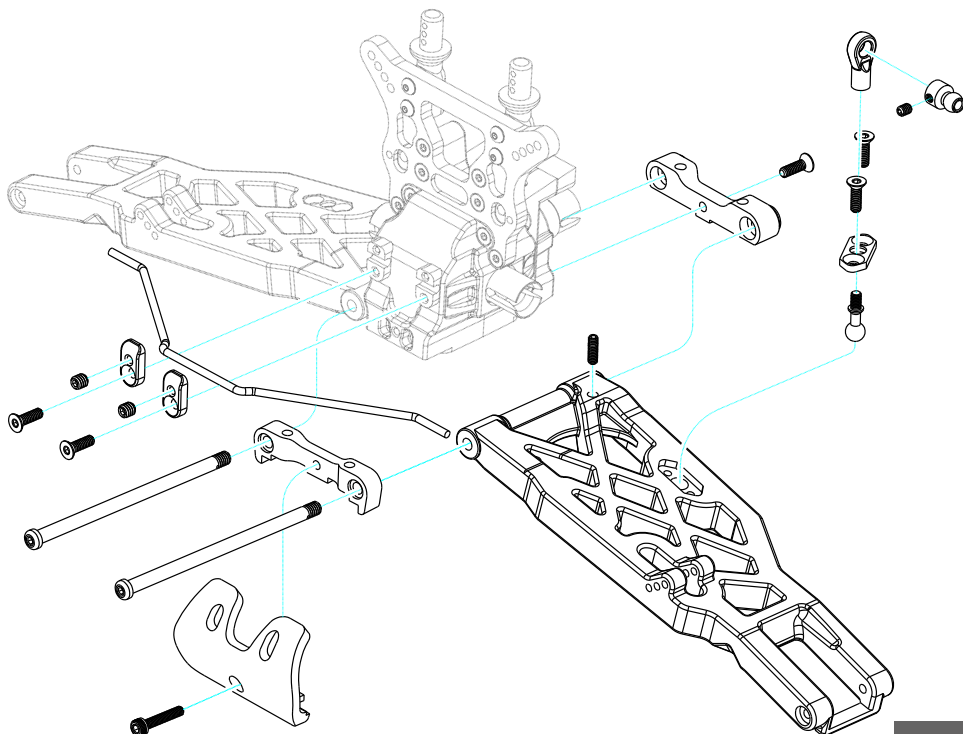


Lock Nut M3

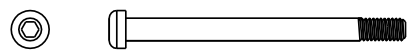


4x76mm Hinge Pin

## 5.FRONT LOWER SUSPENSION ARM ASSEMBLY



M3x12mm  
Socket Cap Screw



3x37mm Hinge Pin



M4x12mm  
Button Head Screw

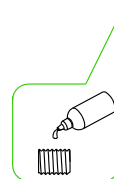
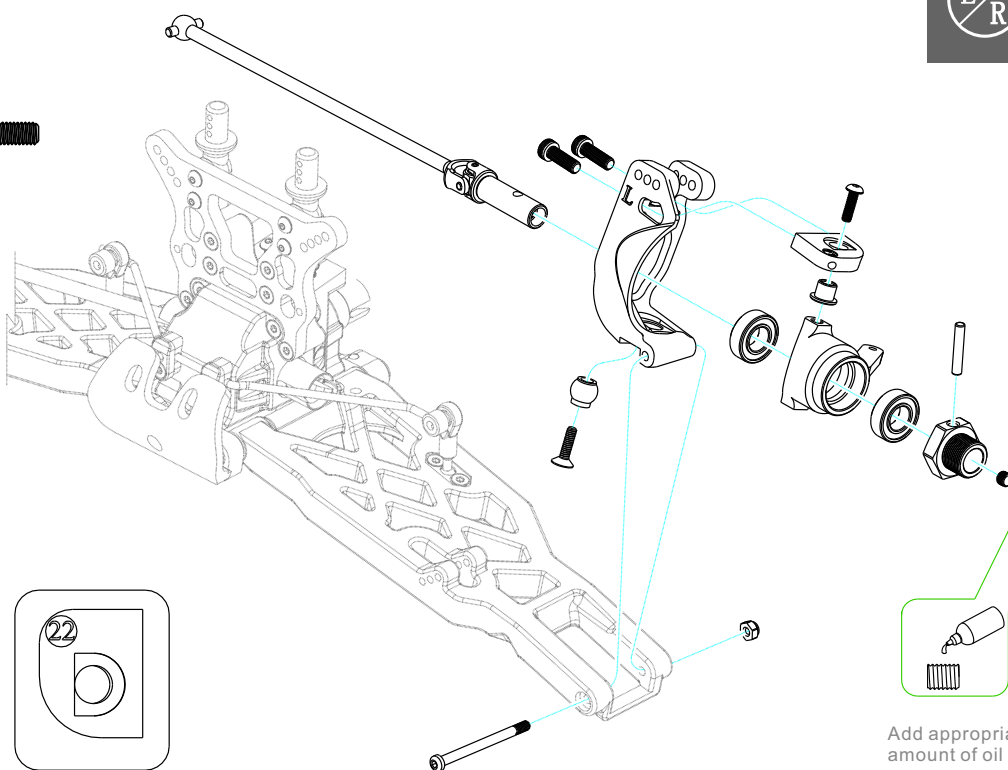


M4x16mm  
Countersunk Screw



Set Screw M4x4

## 6.STEERING ARMS ASSEMBLY



Add appropriate  
amount of oil

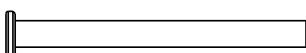
1:1 Scale



M3x12mm  
Countersunk Screw



M3x25mm  
Socket Cap Screw

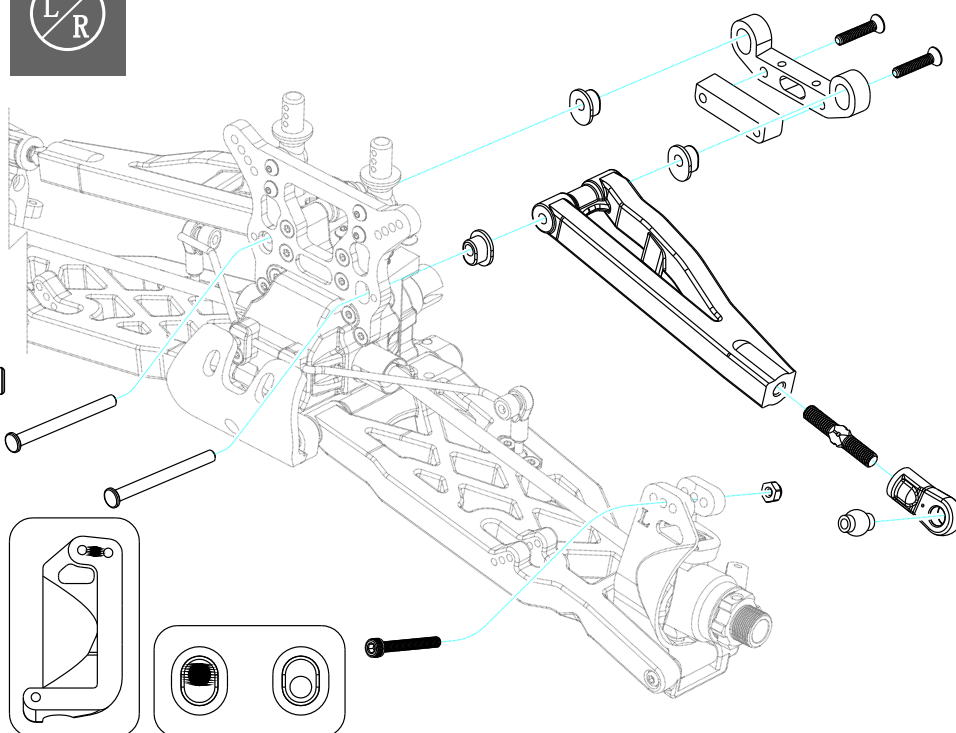


3.5x48mm Hinge Pin



Lock Nut M3

## 7.FRONT UPPER SUSPENSION ARM ASSEMBLY



Set Screw M3x4



M3x6mm  
Countersunk Screw



M3x12mm  
Button Head Screw

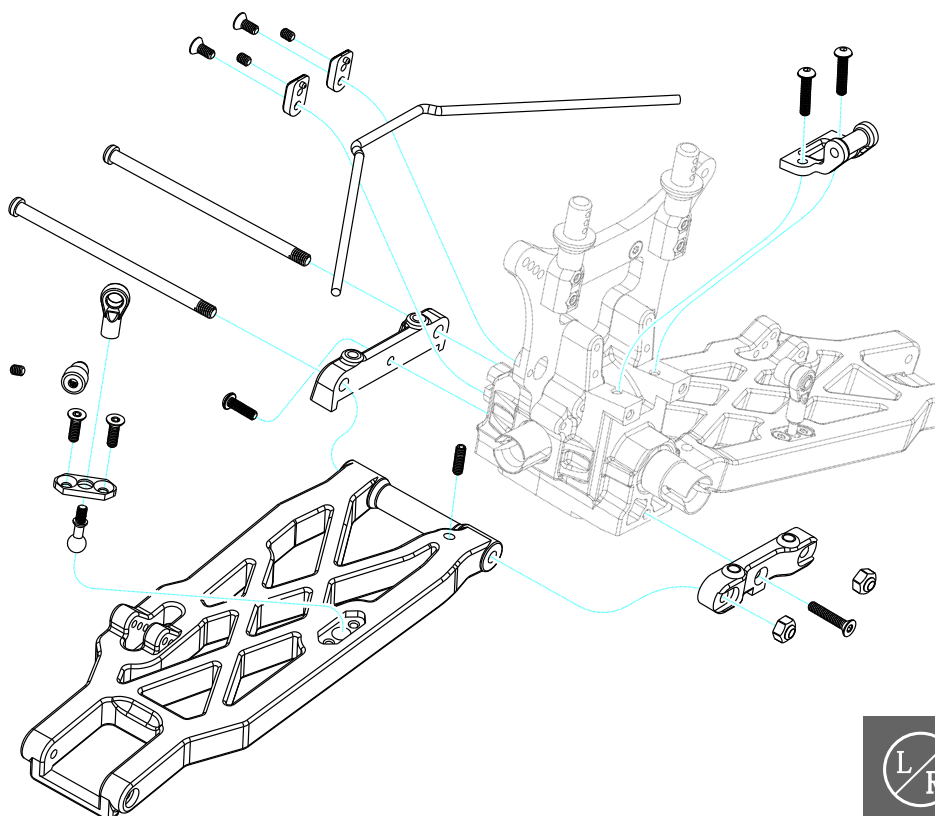


Lock Nut M4



M3x6mm  
Button Head Screw

## 8.REAR LOWER SUSPENSION ARM ASSEMBLY



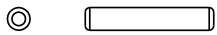
1:1 Scale



M3x25mm  
Socket Cap Screw



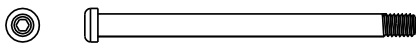
M3x12mm  
Socket Cap Screw



φ3x17 Pin Set



Lock Nut M3

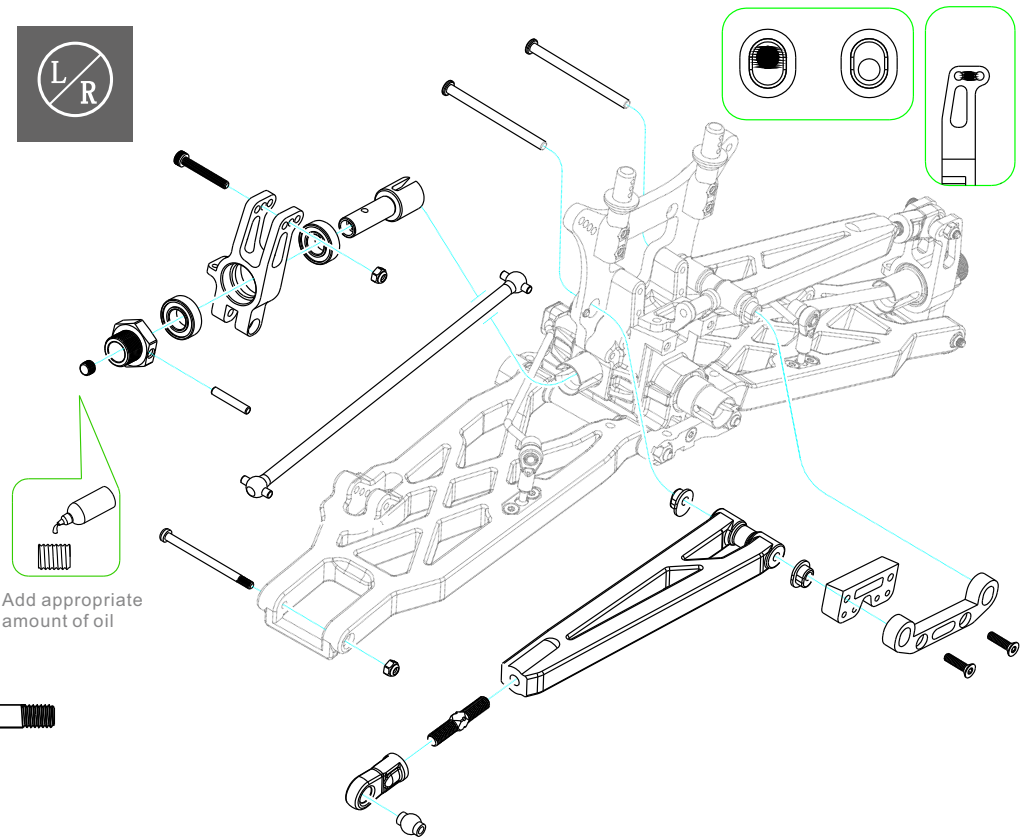


3x42mm Hinge Pin

## 9. REAR HUB CARRIER ASSEMBLY



Add appropriate  
amount of oil



M3x12mm  
Button Head Screw

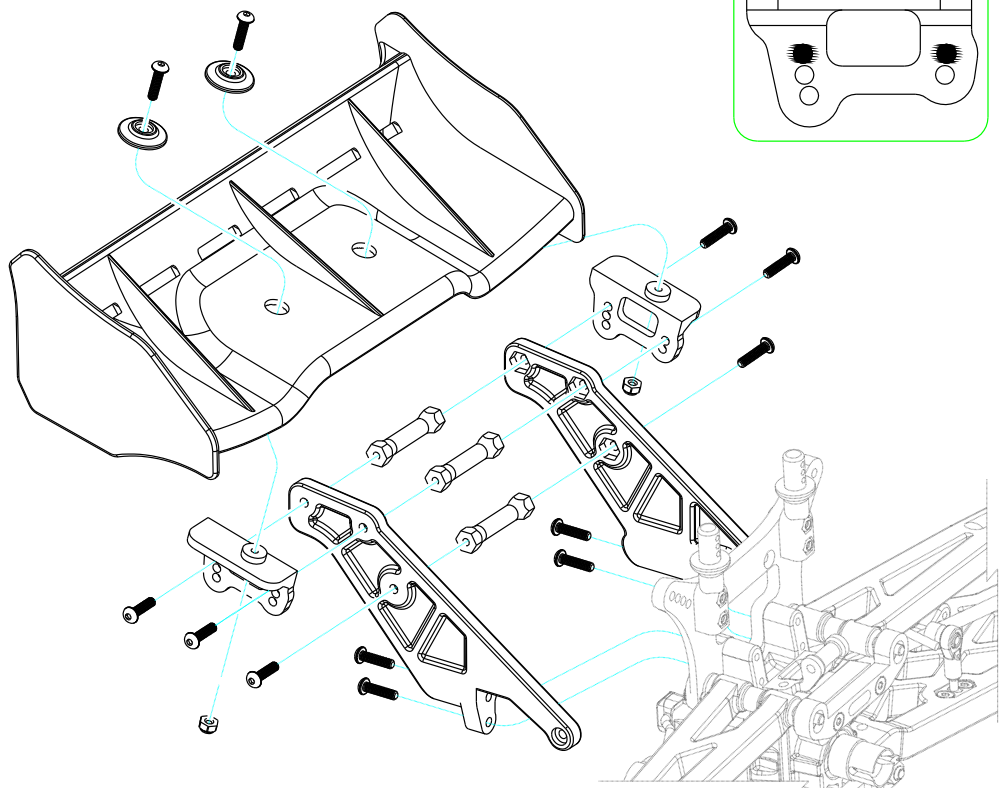


M3x16mm  
Button Head Screw



Lock Nut M3

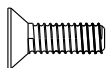
## 10. TAIL WING ASSEMBLY



1:1 Scale

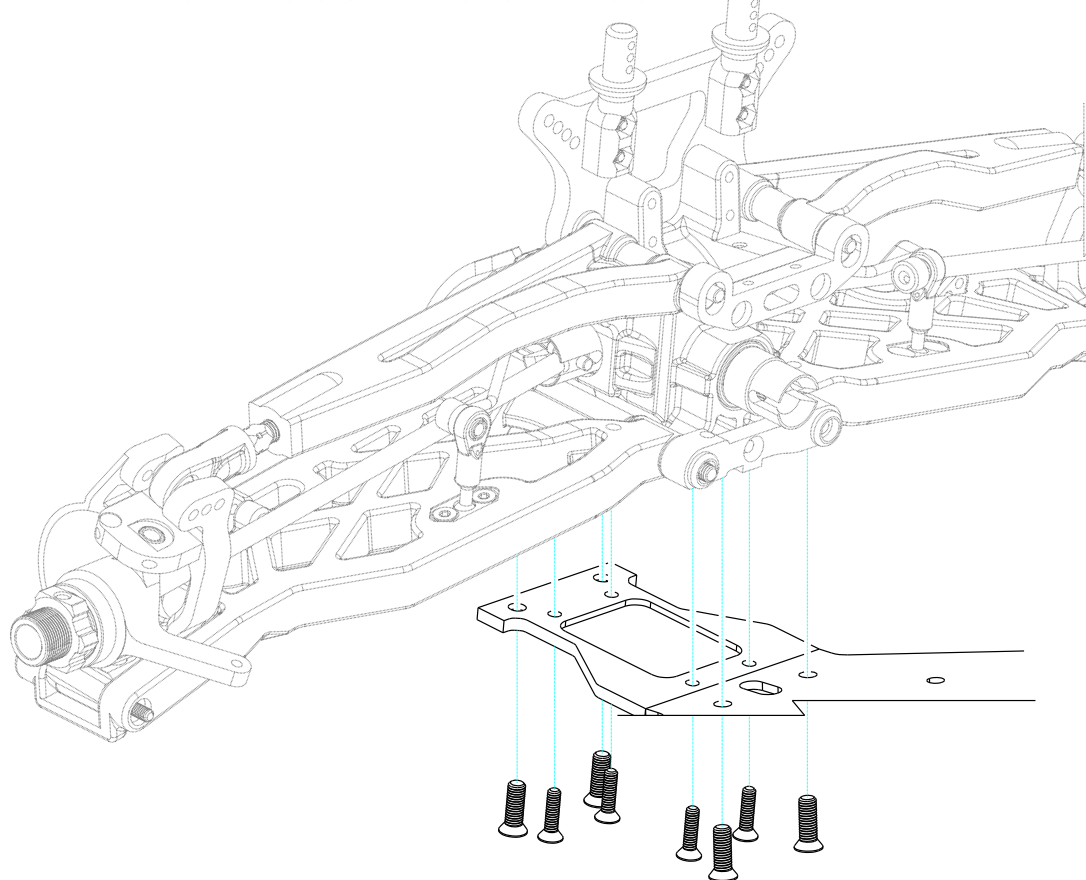


M3x12mm  
Countersunk Screw

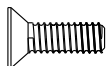


M4x12mm  
Countersunk Screw

## 11.FRONT SUSPENSION ASSEMBLY



M3x12mm  
Countersunk Screw



M4x12mm  
Countersunk Screw

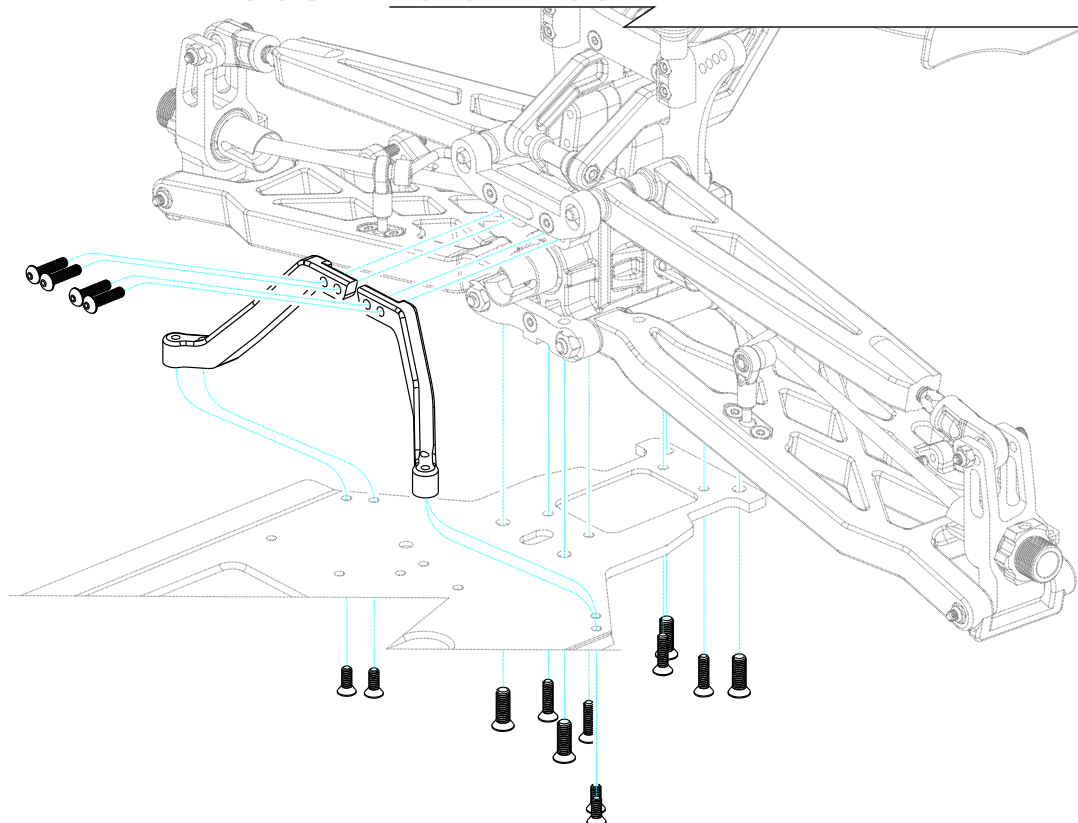


M3x12mm  
Button Head Screw



M3x10mm  
Countersunk Screw

## 12.REAR SUSPENSION ASSEMBLY





1:1 Scale



M3x16mm  
Button Head Screw



M3x13mm  
Button Head Screw

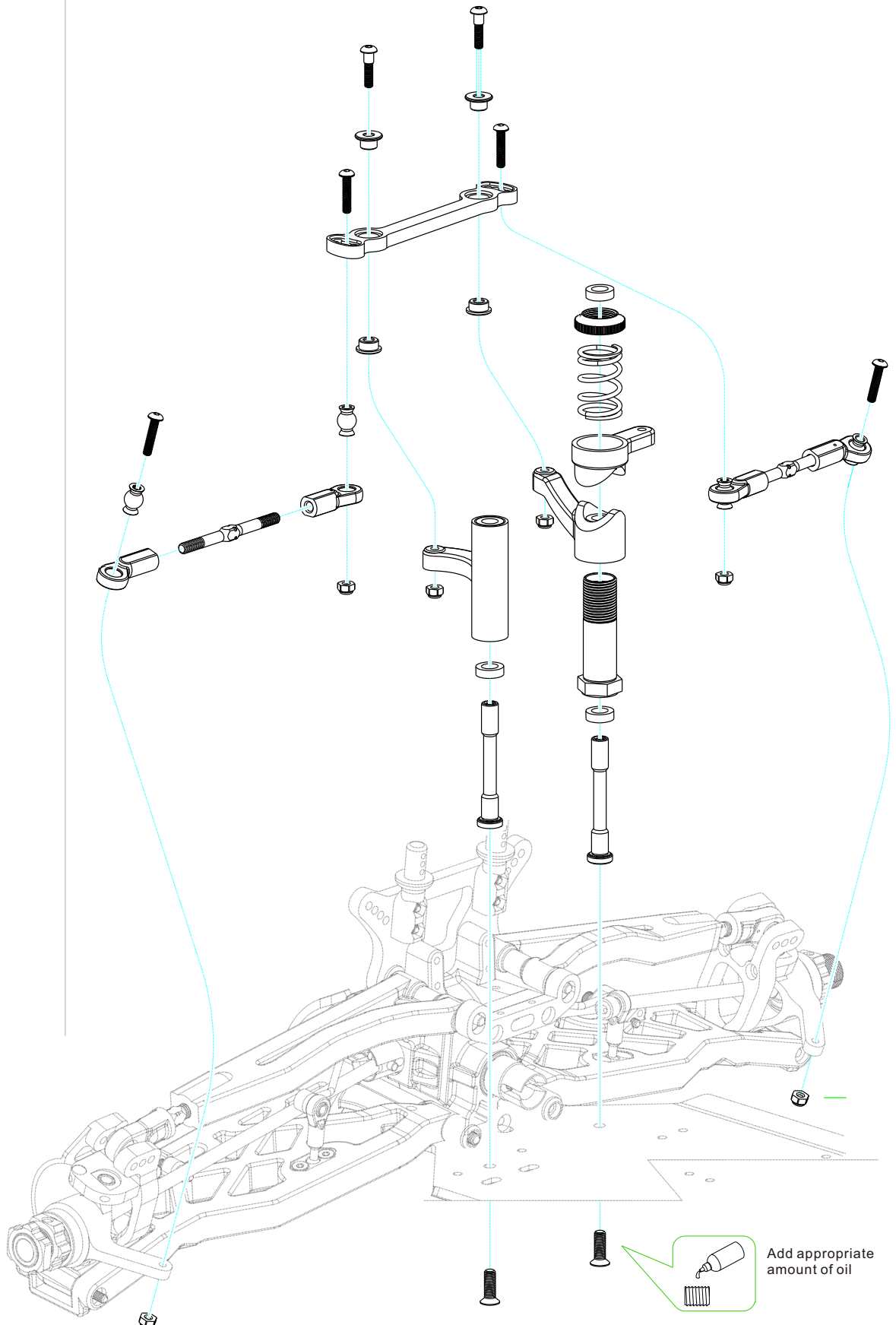


M4x8mm  
Countersunk Screw



Lock Nut M3

## 13. STEERING ASSEMBLY





1:1 Scale



8078  
M3x10mm  
Button Head Screw



8456  
M3x8mm  
Socket Cap Screw

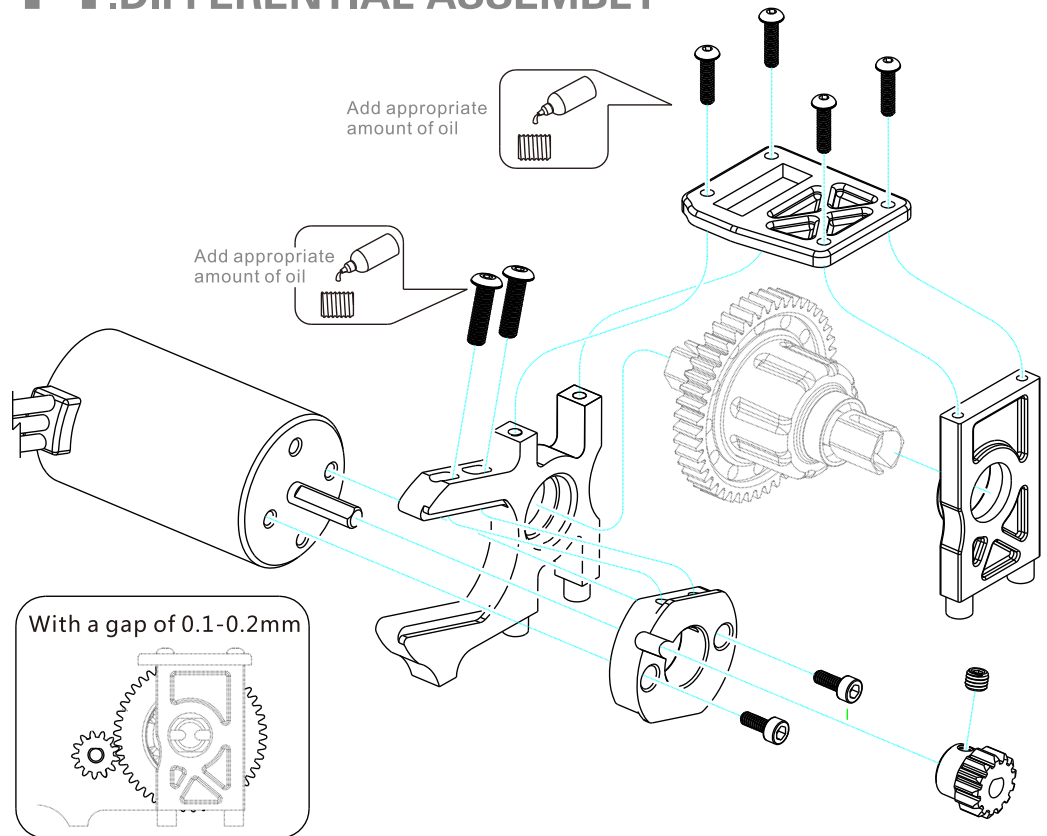


8456  
M4x14mm  
Button Head Screw



8084  
Set Screw M3x4

## 14.DIFFERENTIAL ASSEMBLY



M4x8mm  
Button Head Screw



M3x10mm  
Button Head Screw



M3x32mm  
Button Head Screw

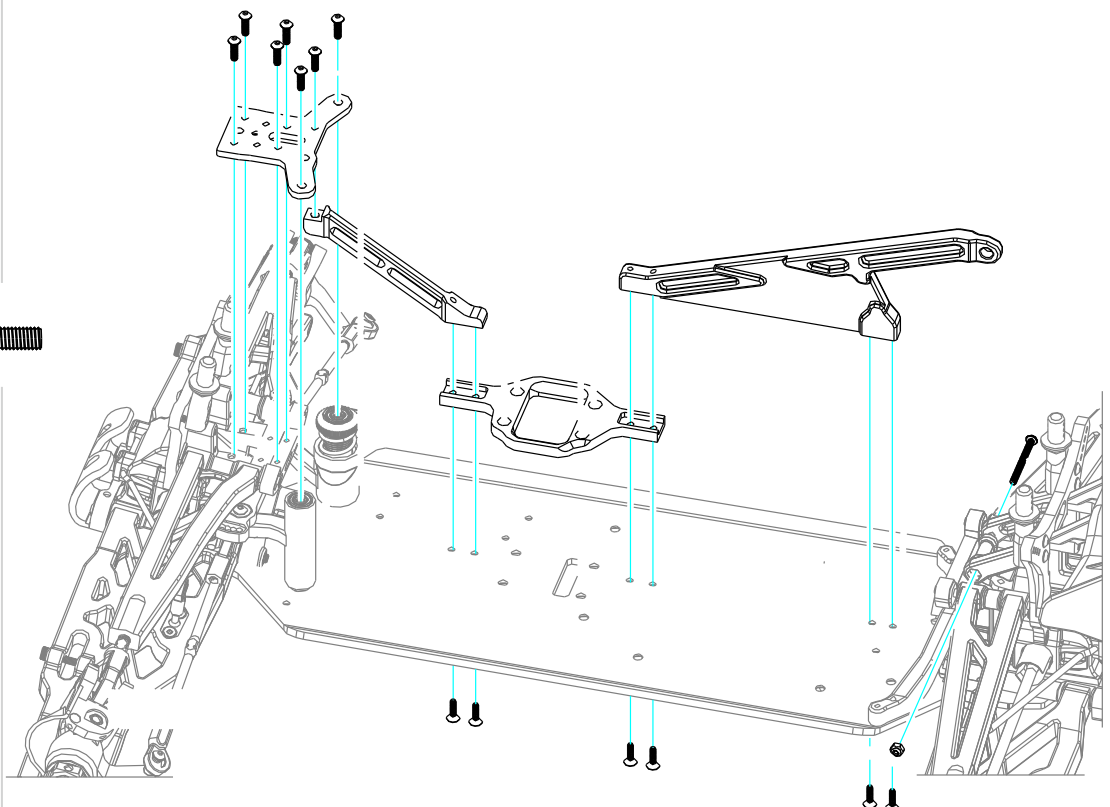


M3x14mm  
Countersunk Screw



Lock Nut M3

## 15.SUPPORT BRACE ASSEMBLY

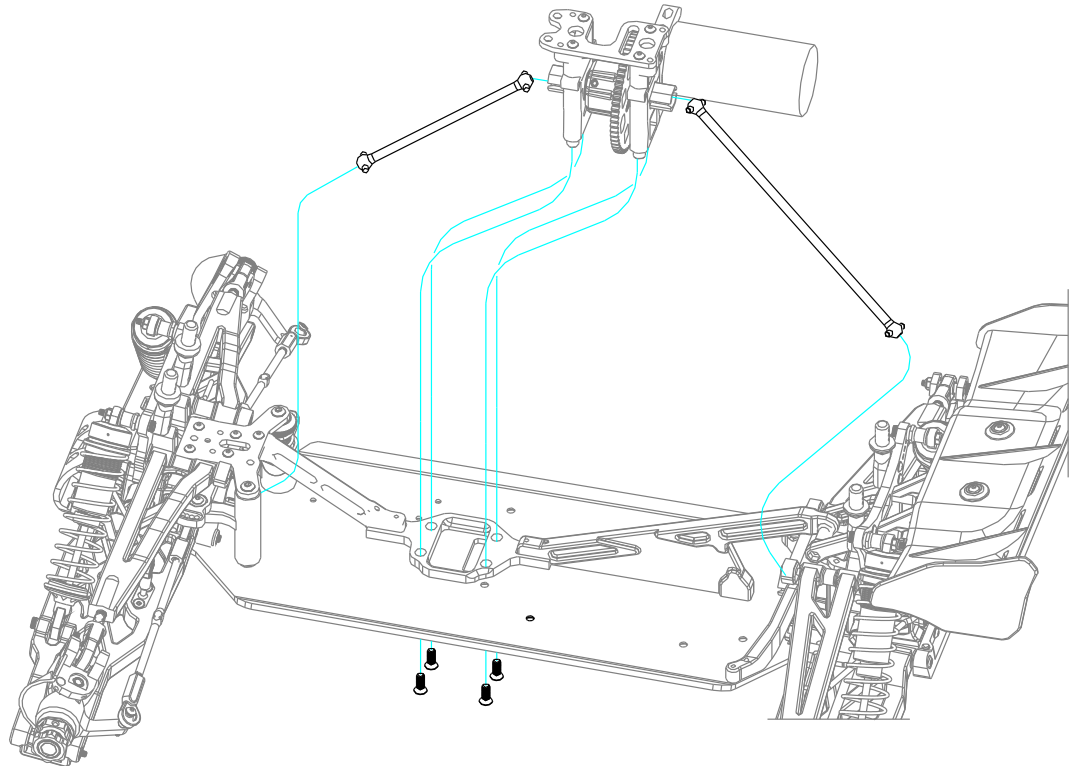


1:1 Scale



M4x8mm  
Countersunk Screw

## 16. DIFFERENTIAL ASSEMBLY



M3x10mm  
Countersunk Screw



M3x18mm  
Button Head Screw

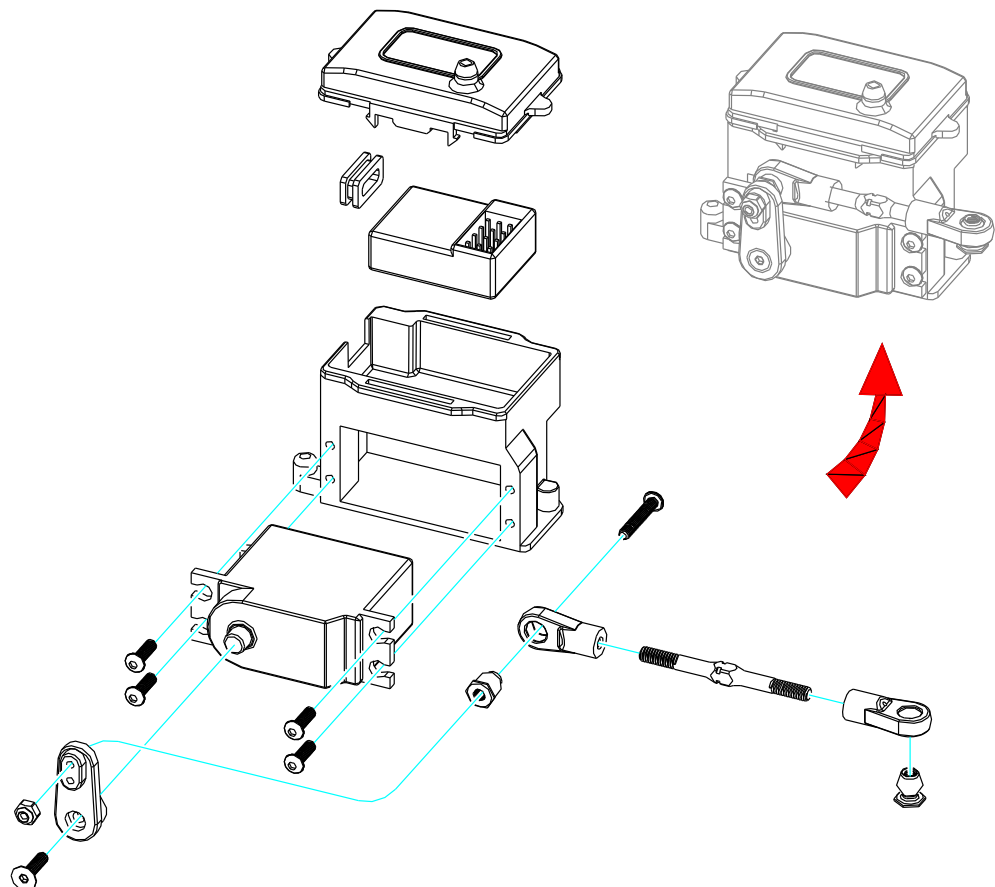


Lock Nut M3



M3x10mm  
Button Head Screw

## 17. SERVO ,RECEIVER ASSEMBLY



1:1 Scale



M3x18mm  
Button Head Screw

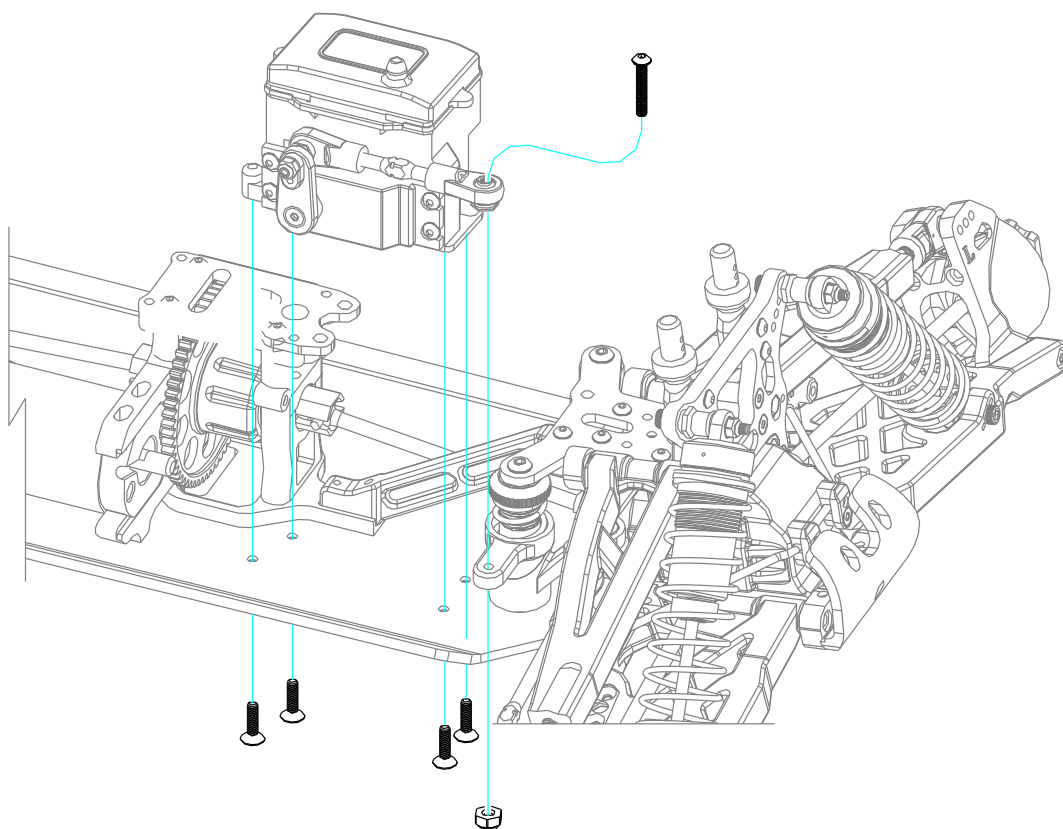


Lock Nut M3



M3x10mm  
Countersunk Screw

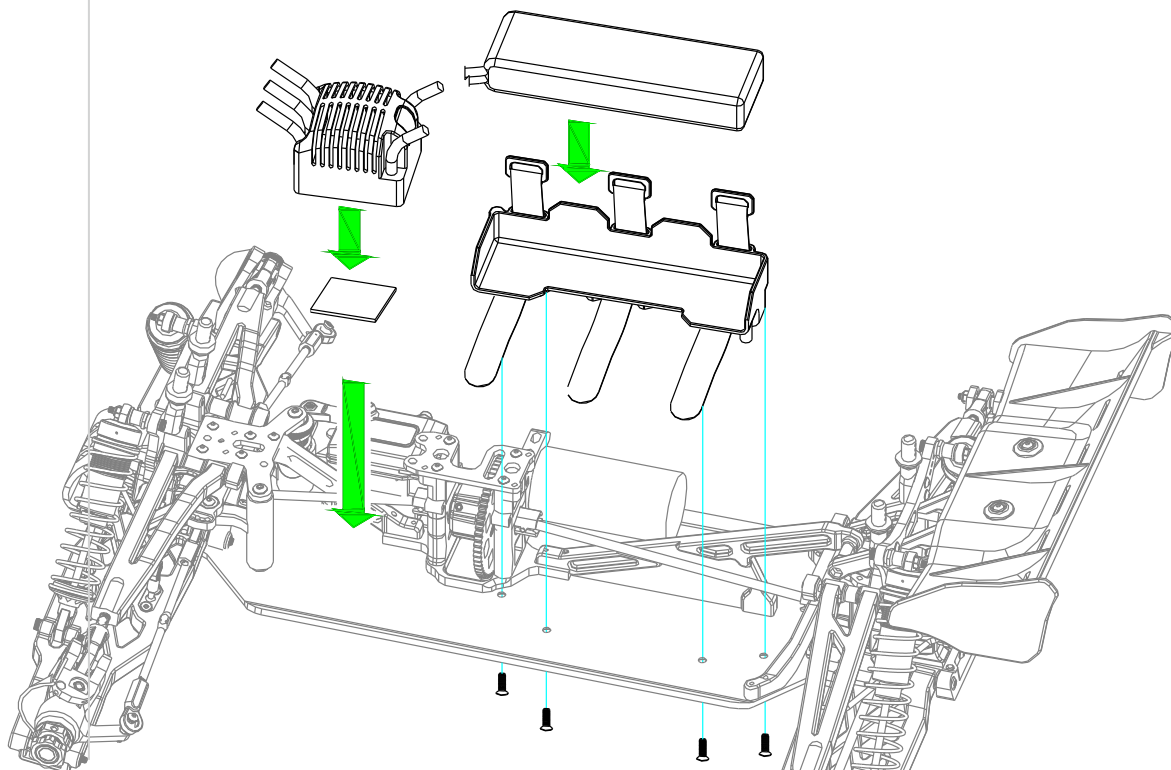
## 18.SERVO ASSEMBLY



## 19.BATTERY/ESC ASSEMBLY



M4x8mm  
Countersunk Screw

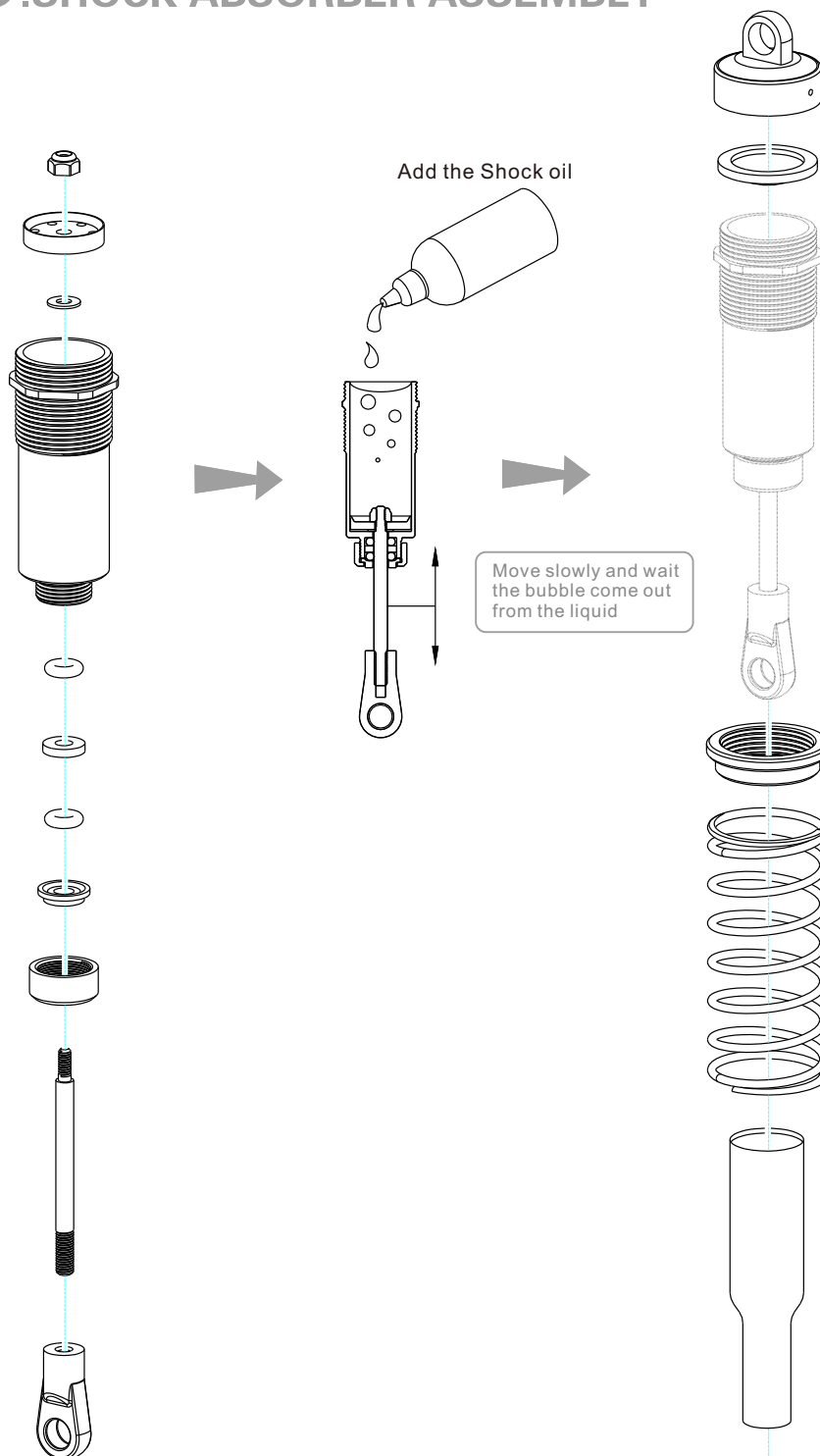


1:1 Scale

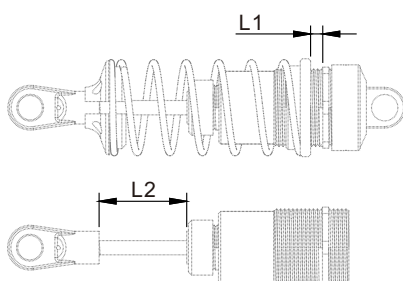


Lock Nut M2. 5

## 20. SHOCK ABSORBER ASSEMBLY



Please use the 500 # shock oil



Front Shock Absorber L1=4.0mm  
L2=35mm

Rear Shock Absorber L1=7.0mm  
L2=45mm

1:1 Scale

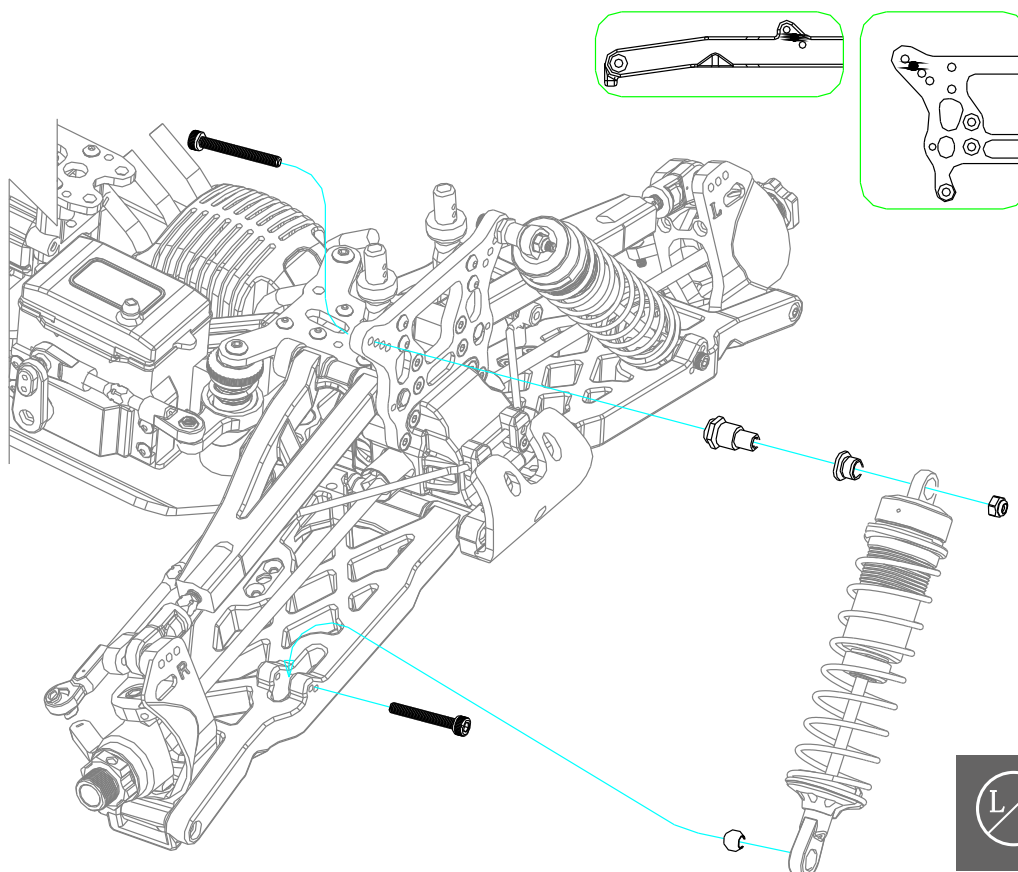


8082  
M3x25mm  
Socket Cap Screw



8085  
Lock Nut M3

## 21.FRONT SHOCK ABSORBER ASSEMBLY

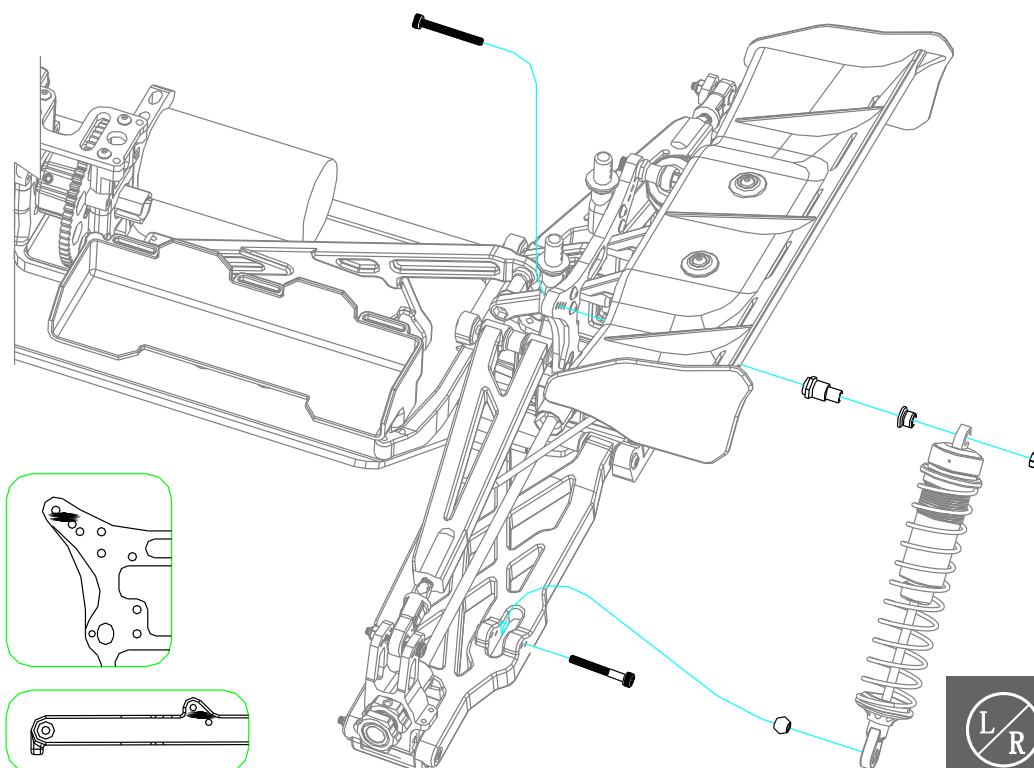


8082  
M3x25mm  
Socket Cap Screw



8085  
Lock Nut M3

## 22. REAR SHOCK ABSORBER ASSEMBLY



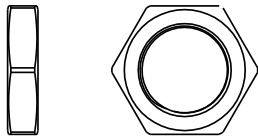


1:1 Scale

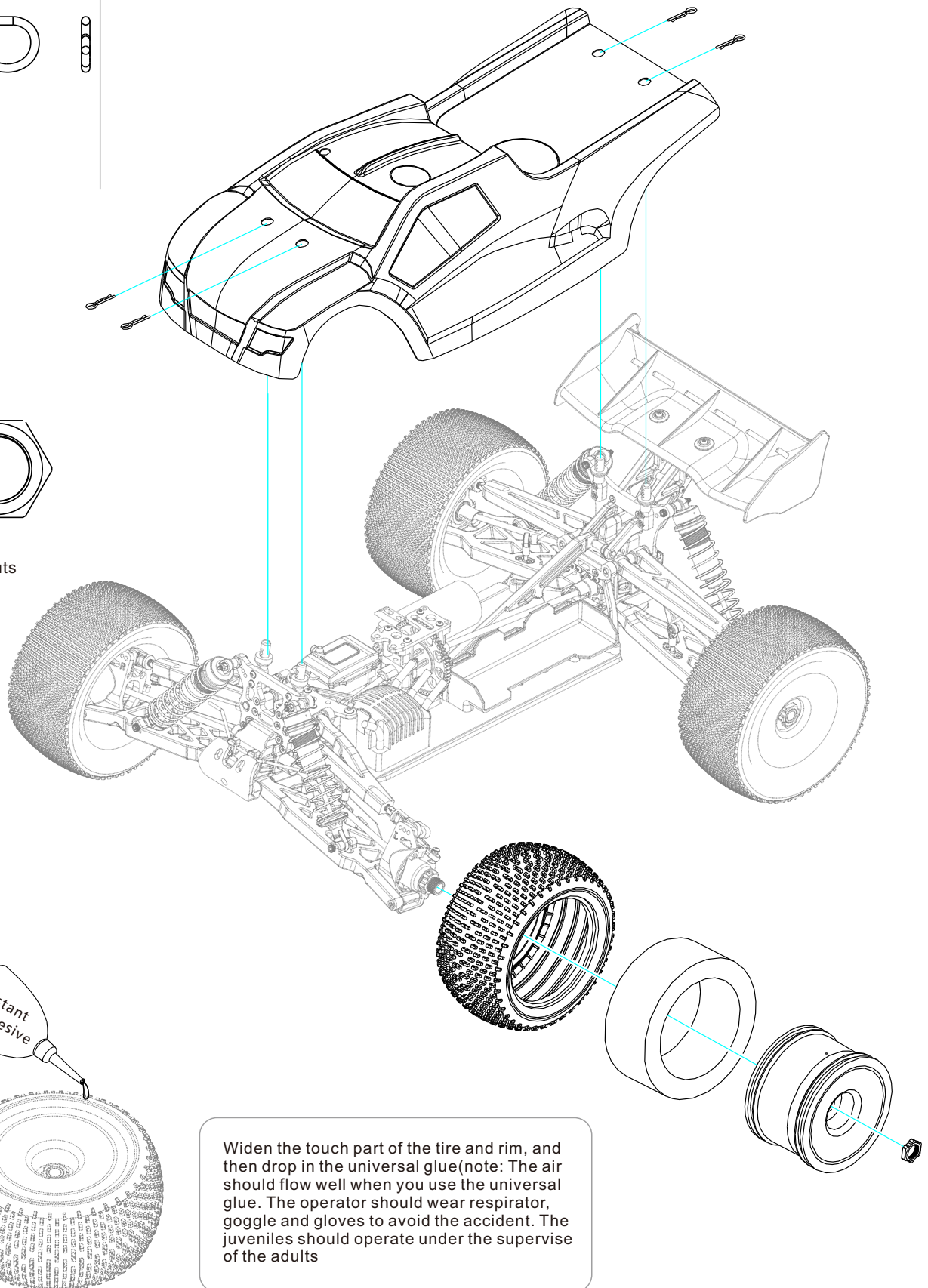
## 23.BODY/TIRE ASSEMBLY



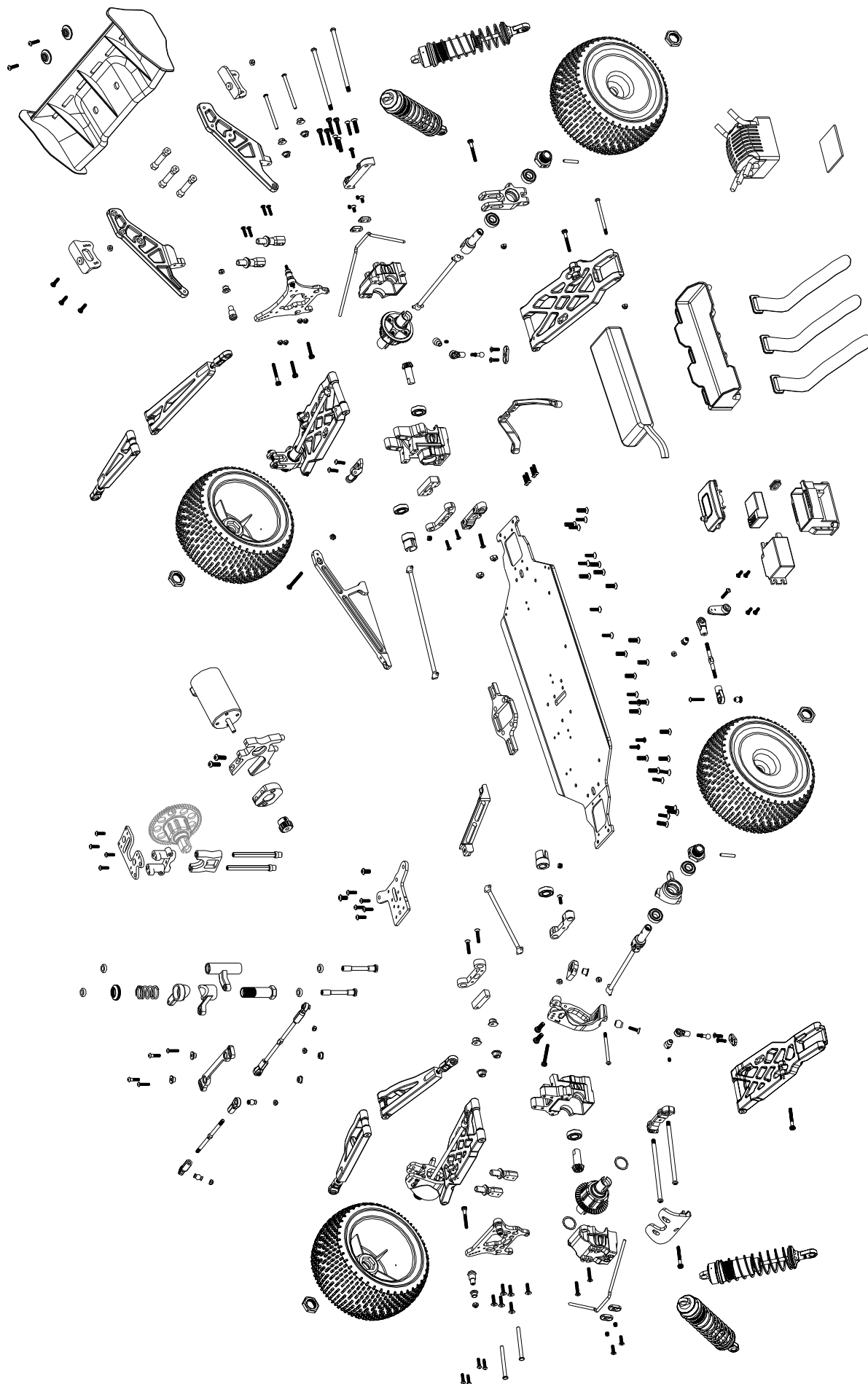
8088  
R-Pin Set



8068  
H17 Wheel Hex Nuts

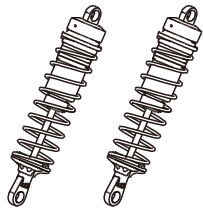






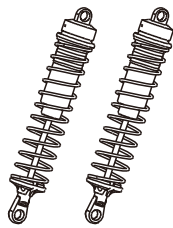
## REPLACEMENT PARTS

8317



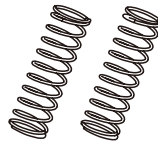
Front Shock Absorbers

8318



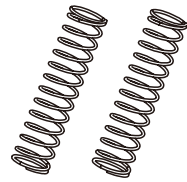
Rear Shock Absorbers

8319



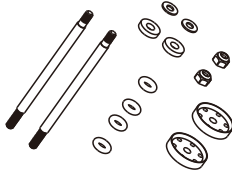
Front Shock Absorber Springs

8320



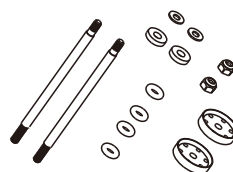
Rear Shock Absorber Springs

8005



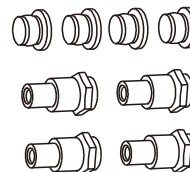
Front Shock Absorber Shafts

8006



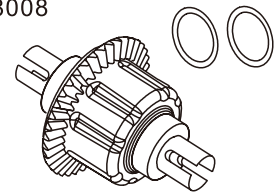
Rear Shock Absorber Shafts

8007



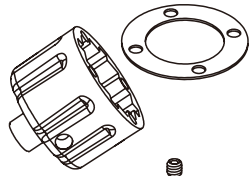
Shock Absorber Bushing

8008



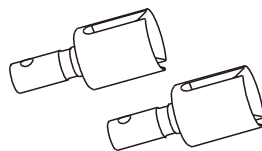
Differential (CNC)

8010



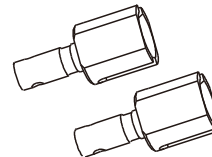
Differential Case

8011



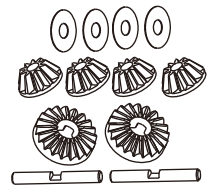
Planet Gear Joints

8012



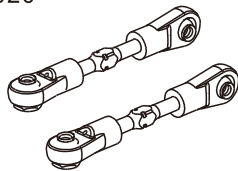
Center Differential Joints

8013



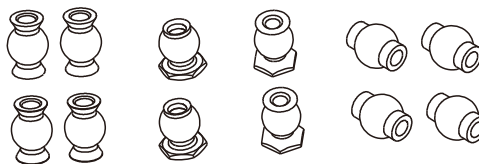
Differential Gears

8020



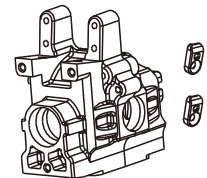
Steering Rods I

8024



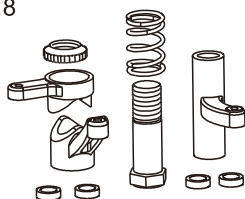
All Ball Heads

8025



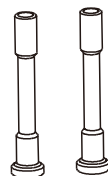
Gear Case

8028



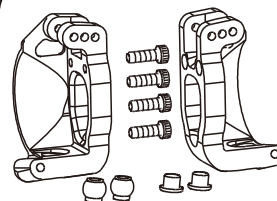
Steering

8032

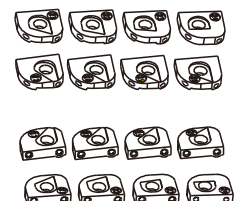


Steering Shafts

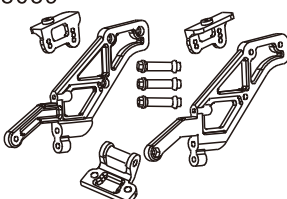
8037



C-Mounts

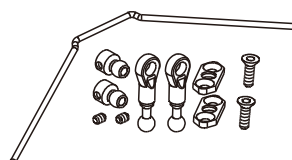


8039



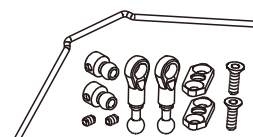
Tail Wing Brackets

8043



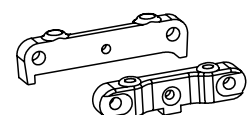
Rear Anti-roll Bars

8044



Front Anti-Roll Bars

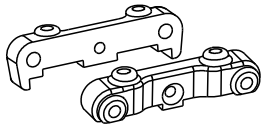
8045



Rear Lower Suspension Bracket Mounts (CNC Machined)

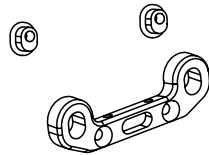
## REPLACEMENT PARTS

8046



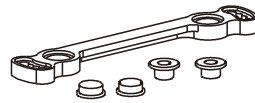
Front Lower Suspension Bracket Mounts (CNC Machined)

8047



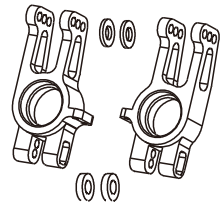
Front Upper Suspension Bracket Mounts (CNC Machined)

8049



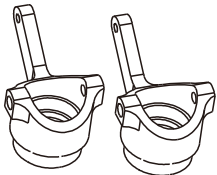
Steering Connecting Plates (CNC Machined)

8051



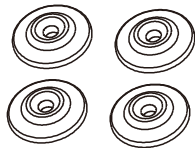
Rear Hub Carriers (CNC Machined)

8052



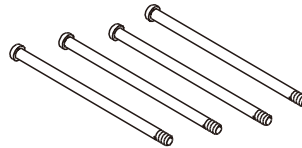
Steering Cups (CNC Machined)

8053



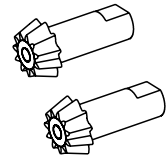
Tail Wing Washers

8054



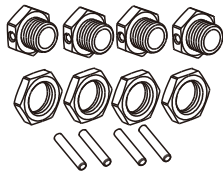
Pins for Lower Suspension Arms

8060



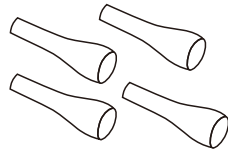
Pinion Gears (CNC Machined)

8068



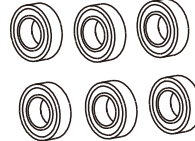
Hex Wheel Hub Mounts

8070



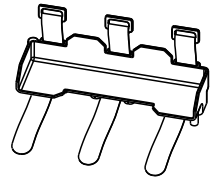
Dust Covers for Shock Shaft

8073



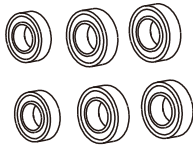
16 x 8 x 5 Bearings

8426



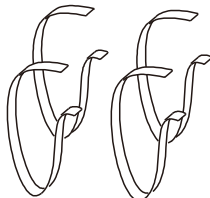
Battery Box

8091



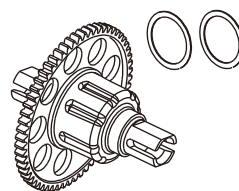
10 x 6 x 3, 12 x 6 x 4 Bearings

8104



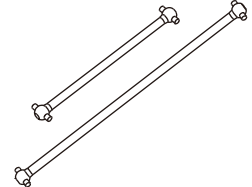
Velcro

8156



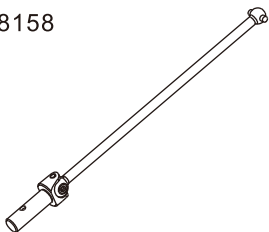
Center Differential Complete

8157



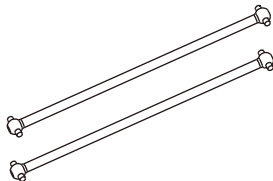
Front and Rear Vertical Drive Shafts

8158



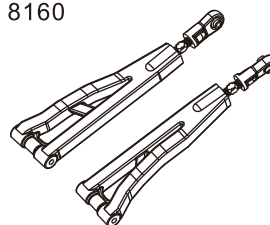
Front Horizontal Universal Shafts

8159



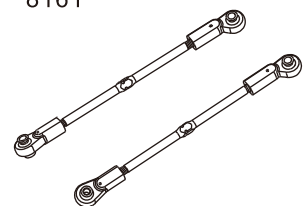
Rear Horizontal Drive Shafts

8160



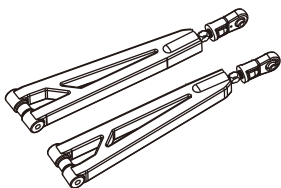
Front Upper Suspension Arms

8161



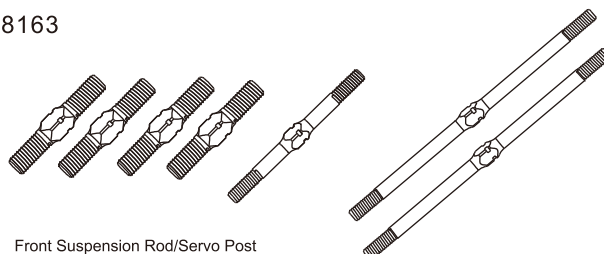
Horizontal Steering Rods

8162



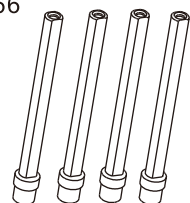
Rear Upper Suspension Arms

8163



Front Suspension Rod/Servo Post Horizontal Steering Rods

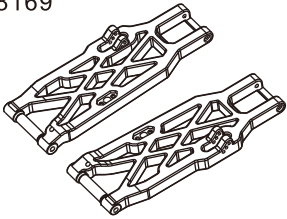
8166



Centre Differential Pillars

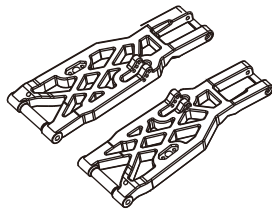
## REPLACEMENT PARTS

8169



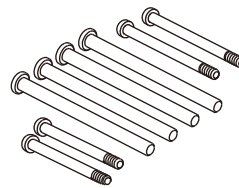
Rear Lower Suspension Arm

8170



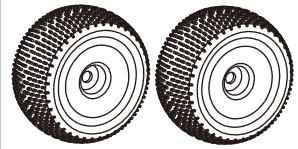
Front Lower Suspension Arm

8171



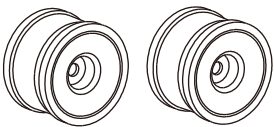
Pins for C-mount, Up Suspension Arm and Rear Hub Carrier

8173



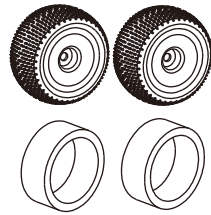
Pre-glued tire

8174



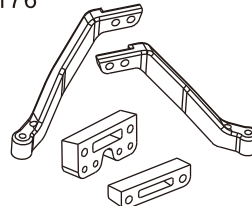
Tire Rim Set

8175



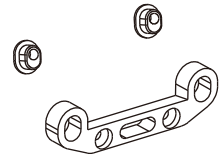
Truggy Tires with Sponges

8176



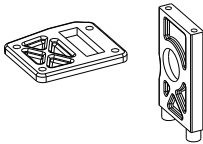
Rear Chassis Brace  
Front & Rear Suspension Pads

8177



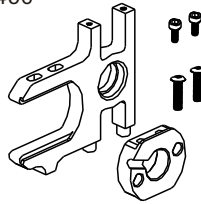
Rear Upper Suspension Arm Mounts

8428



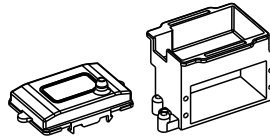
Center Differential Mount

8456



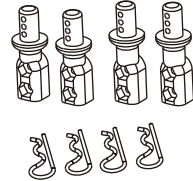
Aluminium Motor Mount

8265



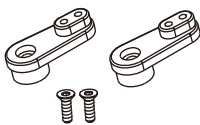
Receiver box / ESC mount

8185



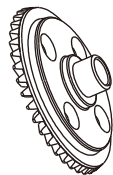
Body Posts

8186



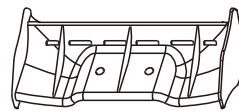
Servo Horns

8215



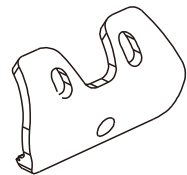
38T Differential Large Gear

8216



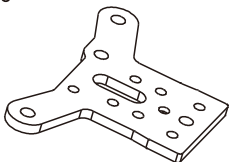
Tail Wing

8217



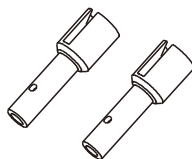
Front Bumper

8220



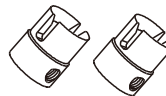
Front Upper Plate (CNC Machined)

8227



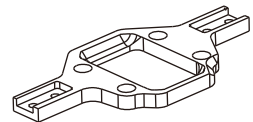
Wheel Axles

8228



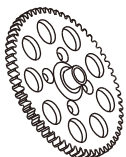
Drive Gear Connecting Cups

8245



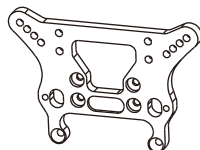
Center Differential Mounting Plate

8243



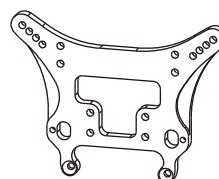
46T Spur Gear

8261



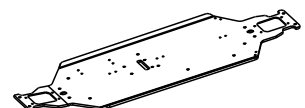
Front Shock Plate

8262



Rear Shock Plate

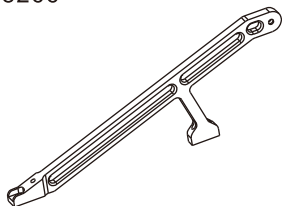
8264



Truggy Chassis

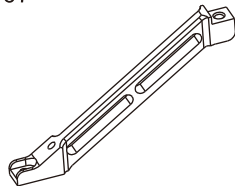
## REPLACEMENT PARTS

8266



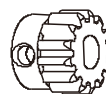
Rear Support Brace

8267

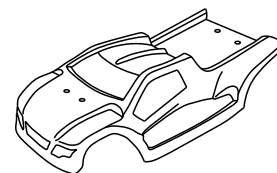


Front Support Brace

8851

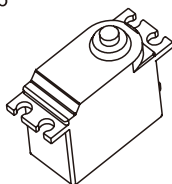


Motor Gears 16T  
(CNC Machined)



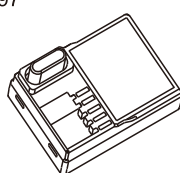
8460 PVC Body(Red, black)  
8461 PVC Body(Green, black)

8096



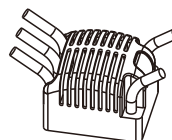
9 kg Servo with Metal Gears

8097



Receiver

8268



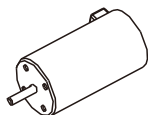
ZTW 80A  
Brushless ESC

8273



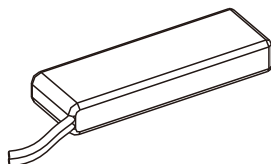
2.4G Radio Set

8471



3670 KV2150  
Brushless Motor

8472



3S 3000mAh, 11.1V,  
35C Li-Po Batteries

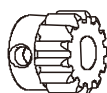
8464



ESC Programming card

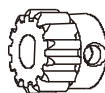
## OPTIONAL UPGRADE PARTS

8195



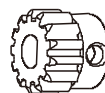
Motor Gears 13T(CNC)

8450



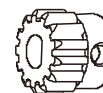
Motor Gears 14T(CNC)

8451



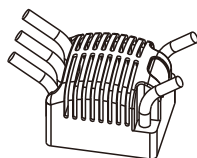
Motor Gears 15T(CNC)

8452



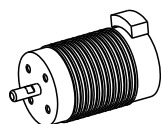
Motor Gears 17T(CNC)

8272



ZTW 120A  
Brushless ESC

8274



Kb4268 Kv1800  
Brushless Motor

8315



Battery Lead Set

8101

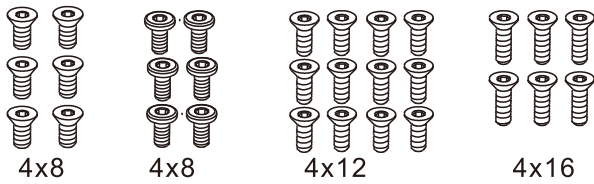


2 Cells, 4000mAh, 7.4V,  
25C Li-Po Batteries



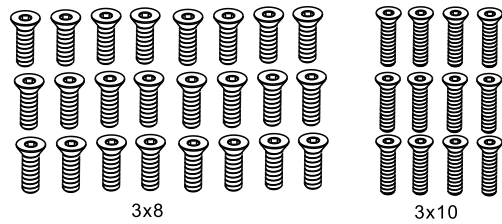
## REPLACEMENT PARTS

8075



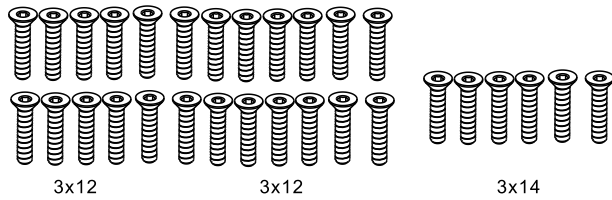
Flat Head & Cap Screw Set

8076



Flat Head Screw Set

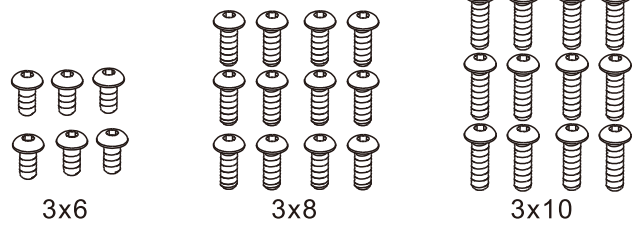
8077



Flat Head Screw Set

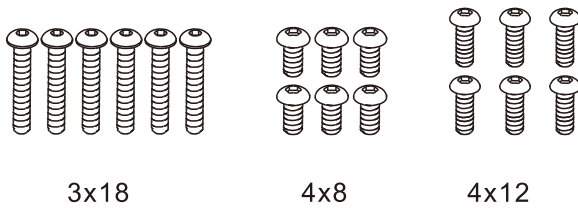
8078

Button Head Screw Set



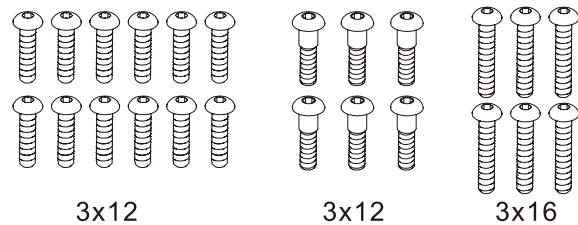
8079

Button Head Screw Set

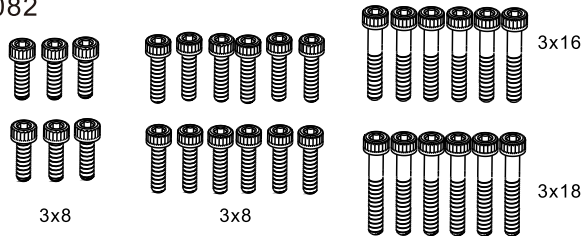


8081

Button Head Screw Set

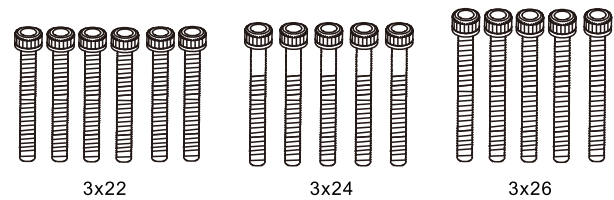


8082



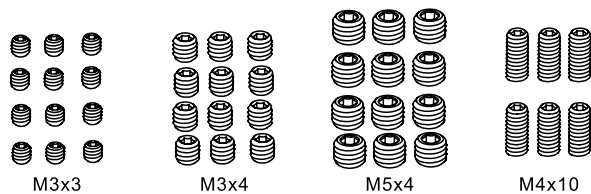
Cap Screw Set

8083



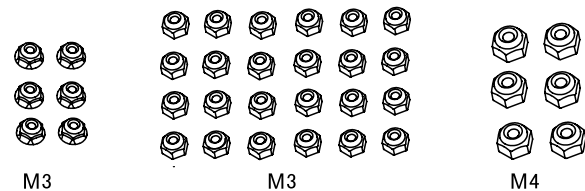
Cap Screw Set

8084



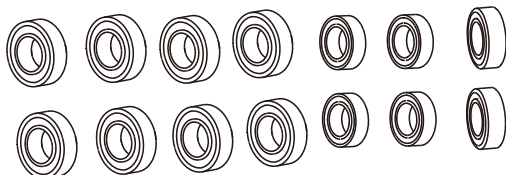
Set Screw Set

8085



Locknut Set

8109



Complete Bearing Set for Electric Buggy









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