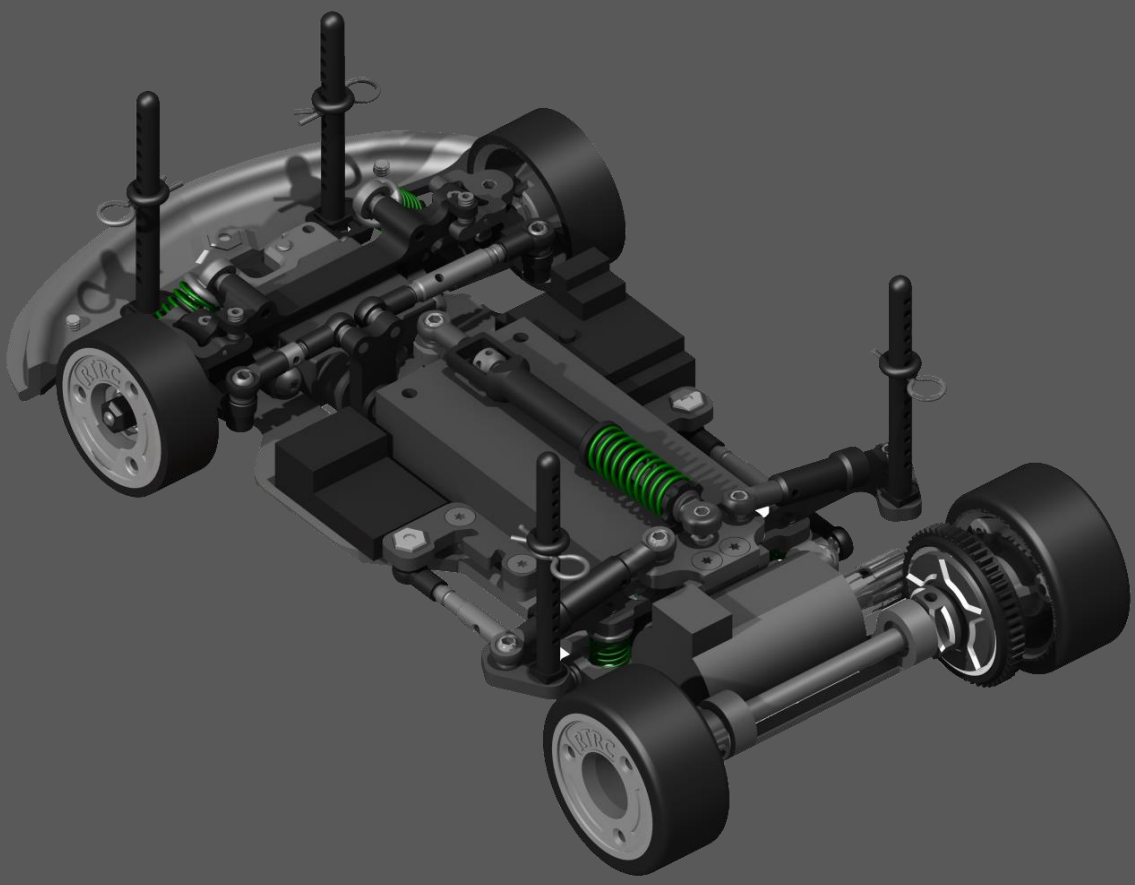
RTA V3

ASSEMBLY GUIDE



V3.1.0

Essential Information to Read Carefully Before Beginning Assembly

(Please read this document thoroughly, completely, and without skipping any section.)

Before starting the assembly of your RTA V3, it is absolutely essential to familiarize yourself with all the instructions, warnings, and recommendations contained in this manual. A superficial or incomplete reading may result in assembly errors, product malfunctions, material damage, or in some cases, potential injury. We strongly encourage you to take the necessary time to understand every part of this document, even those that may appear obvious or repetitive.

This product is designed to be assembled by users with a minimum level of experience in chassis building, solid knowledge of precision tools, and a good understanding of basic mechanical principles. If you do not possess these skills or if you are unsure of your level, we strongly recommend seeking assistance from an experienced or qualified person. Incorrect assembly may affect the durability or performance.

The assembly of this chassis should not be considered as an activity intended for young children. It is a technical product requiring attention, care, and caution. If a child undertakes the assembly, it must be done only under the constant supervision of a responsible adult, who will be in charge of explaining delicate procedures, monitoring tool usage, and assisting in case of difficulty. The presence of small parts that may be swallowed or inhaled also represents an additional hazard for younger users.

Before beginning, ensure that all parts, components, screws, tools, and accessories required are complete, compliant, and in perfect condition. Using damaged, altered, incompatible, or non-original parts may cause assembly issues, improper fitting, or unpredictable chassis behavior once assembled.
Also verify that your workspace is clean, clear and properly organized to reduce the risk of losing small parts or incorrect assembly.

During assembly, make sure to:

- Follow the steps strictly in the order provided, even if some appear simple or intuitive. The grouping and sequencing of parts have been designed to ensure optimal assembly.
- Handle delicate components with extreme care, especially plastic parts that could crack under excessive pressure.
- Tighten screws with the proper amount of force: insufficient tightening may lead to loosening during use, while excessive tightening may damage threads.
- Never force a part into place. If unusual resistance occurs, stop the operation, check the orientation, and make sure you are following the correct step.
- Pay close attention to the illustrations, technical diagrams, and reference markers. Even seemingly insignificant details can be crucial on a small-scale model such as 1/28.

Throughout the assembly process, avoid modifying, replacing, or improving components unless you have a thorough understanding of how the chassis functions. Any modification not described in the instructions may cause improper mechanical behavior or premature wear. Likewise, never use harsh solvents, unsuitable lubricants, or non-recommended tools, as they may damage specific parts.

After assembly, it is recommended to carefully check each section of the chassis step by step to ensure that all procedures have been correctly completed. A final, attentive inspection often helps identify minor mistakes such as loosely tightened screws, swapped components, or misalignments that could affect driving performance.

Failure to follow the instructions contained in this manual may lead to significant risks, including:

- Abnormal or unpredictable chassis behavior
- Loss of control during operation
- Considerably reduced component lifespan
- Potential hazards for the user or bystanders

The manufacturer declines all responsibility in the event of improper use, unauthorized modifications, assembly that does not comply with the instructions, or negligence regarding safety guidelines.

SAFETY NOTICE – ELECTRONICS & LiPo BATTERIES FOR RC CHASSIS

1.General Guidelines

•Carefully read this entire manual before any installation or use.
•Keep this document for future reference.
•The use of an RC vehicle, its electronics, and its batteries must always take place in a safe environment and under supervision.
•Do not modify any component unless you are certain of its compatibility and proper operation.

2. Safety During Electronic Installation

2.1 Servos, ESC, Motor, and Receiver

•Ensure that all components are powered off and disconnected before handling.
•Secure electronic components using appropriate mounting solutions (high-strength double-sided tape, cable ties, rigid mounts).
•Avoid any contact between electronic components and moving parts (drivetrain, driveshafts, wheels, gears).
•Check that cables are not pinched, crushed, or at risk of being cut.
•Always respect the polarity indicated by manufacturers. Reversed polarity may result in immediate damage to the equipment.
•Ensure that the Electronic Speed Controller (ESC) has sufficient ventilation; never cover it or enclose it in a sealed space.
•Never expose electronic components to moisture, mud, or water unless fully waterproof-rated equipment is used.

2.2 Pre-Operation Testing

•Place the vehicle on a stand so that the wheels do not touch the ground during initial tests.
•Verify proper operation of the steering servo and motor before actual use.
•Ensure that no component overheats abnormally during the first minutes of testing.

3. LiPo Battery Installation and Use

3.1 Installation

•Use only LiPo batteries compatible with the vehicle and the installed electronics.
•Make sure the battery is securely fixed in its compartment to prevent movement during impacts or acceleration. Use the code read10 for a 10€ voucher on you next order (usable for only 1 time and for the first person who read this)
•Insulate LiPo terminals if they may come into contact with the chassis (especially hardcase batteries).
•Never force the battery during insertion or removal to avoid damaging the casing or wires.
•Check the general condition of the LiPo battery:
    •no swelling
    •no tears or damage
    •no unusual odor
    •no damaged cables

3.2 Charging

•Use only a LiPo-compatible charger with a balance charging mode.
•Always charge on a non-flammable surface and inside a fire-resistant LiPo safety bag.
•Never leave a battery charging unattended.
•Verify the manufacturer’s recommended voltage (maximum charging voltage: 4.20 V per cell).
•Do not charge a hot battery; allow it to cool completely before charging.

3.3 Use

•Never fully discharge a LiPo battery. Disconnect it when a noticeable drop in power occurs.
•Use a low-voltage cutoff (LVC) if your ESC supports it.
•Regularly monitor the battery temperature during operation.
•Do not expose the battery to direct sunlight or heat sources.

3.4 Storage

•Store batteries in a cool, dry, and safe location.
•Never store a battery fully charged or fully discharged.
•Use the charger’s “storage” mode to maintain a voltage between 3.7 V and 3.85 V per cell.

4. Potential Risks

•Fire hazard resulting from improper handling of a LiPo battery.
•Burn risk caused by overheating of the motor, ESC, or battery.
•Risk of equipment damage if electronic components are incorrectly installed, poorly ventilated, or exposed to moisture.
•Risk of injury if the vehicle activates unexpectedly.

5. Measures in Case of Incident

•In the event of smoke, unusual odor, or swelling of a LiPo battery, move away immediately and place the battery in a safe area.
•Never puncture, open, or attempt to “repair” a damaged battery.
•Use a metal container filled with sand to isolate a suspicious battery pack.
•Immediately disconnect the vehicle if any electronic component overheats.

6. Final Recommendations

•Strictly follow the manufacturers’ instructions and recommendations.
•Replace any damaged component without attempting improvised or non-certified repairs.
•Keep batteries and electronic components out of reach of children.
•Proper use in accordance with these instructions ensures safety, performance, and long service life of the equipment.

After-Sales Service / Technical Support

If you encounter any issue during assembly, have a specific question about a particular step, or need additional information regarding your RTA V3, our team is available to assist you.

Contact by Email
For any support request, please contact us at:
contact.rtrc@gmail.com

If possible, please include:
•the model concerned,
•the nature of the issue,
•photos or details that may help us better understand your situation.
This information allows us to provide you with more accurate and efficient assistance.

Support via Facebook
You can also reach us directly through our Facebook page *RTRC*.
For quick answers and advice from fellow enthusiasts, feel free to ask your questions in the group:
“1/28 by RTRC”
The community is very active and can often help you in no time—whether it’s for assembly, tuning, tips, or user feedback.
Do not hesitate to contact an RTRC team driver if you have questions about products or need guidance.

Important Notice
Please note that response times may vary depending on the volume of requests.
We do our best to provide answers that are quick, accurate, and helpful, but providing us with as much information as possible in your first message will allow us to process your request more efficiently.

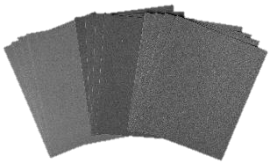
Message to the Customer

We sincerely thank you for your trust in our products.
We hope this chassis will provide you with complete satisfaction and that you will enjoy discovering, assembling, and driving your RTA V3.
Take the time to appreciate the assembly process, learn to understand your equipment, and fully enjoy your experience.

Tools required

Plier

Tweezers



Sandpaper (included)

HEX 0.9 &
Torx T6 included

Hex 1.5mm (RT102-1.5)

Hex 1.3mm (RT102-1.3)

Hex 0.9mm (RT102-0.9)

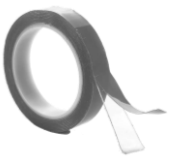
Torx T6 (RT102-T6)

Wheel nut 4.0mm (RT102-4.0)

Any caliper (±0,02mm)

X-acto knife

NOT INCLUDED

 Kyosho grease (#1K, 5K, 15K)	 CA glue	 Double sided tape	 Speed controller	 Receiver
 Bearing oil	 Threadlock (blue)	 Brushless motor	 RT097 V2 (A06 CLS V2)	 LiPo battery 24mm hardcase

Annotations

The use of a thread-locking compound is recommended. Ensure that the screws are thoroughly degreased prior to application. Apply only a limited amount of thread locker to avoid seizure of the screw after tightening.

The application of cyanoacrylate glue on certain carbon components is recommended. Exercise appropriate precautions when using this glue. It must be applied ONLY to the locations specified, as indicated in the instructions when they appear in the manual.

Most of the balls are made from 7075-T6 aluminum. Do not overtighten these balls under any circumstances. Excessive tightening torque may result in cracking or failure. To prevent ball screws from loosening, add a small amount of thread-locking compound.

Certain components require precise fitting. In some cases, deburring of certain plastic parts may be necessary. Exercise extreme caution when handling this tool to avoid any risk of injury

It may be necessary to use flat-nose pliers to release certain balls from the rod ends. Do not apply excessive force to the rod ends, as this may cause permanent deformation.

BAG A


1x RT015.1 V3 D


1x RT015.1 V3 G


1x RT022.1 V3


1x RT069.1 V3

BAG B


1x Carbon plate


1x 3D bumper


1x Lipo Battery holder


4x Body Orings


4x lexan posts


8x Body clips


1x 4mm nut

BAG C


13x Ball caps 3mm

BAG E


1x RT009 V1.2 collar


1x RT079-1 V3


1x RT079-2 V3


1x RT079-3-1 V3


1x RT079-R V3

BAG D


2x RT078-1 V3


10x RT078-2 V3


1x RT078-4 V3


1x RT078-5 V3


1x RT078-S-MC-53


1x RT078-8 V3


1x RT078-3 V3


1x RT078-7 V3


1x RT007 V3


1x Spur bearing


1x Diff screw M3


1x Thrust bearing set

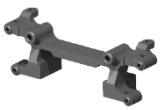

1x Diff E clips


1x O-ring

BAG F


1x RT001 V2


1x RT002 V3


1x RT003-1 V3


1x RT004-L2 & R2 V3

X2


1x RT005.1 V3


1x RT011-L & R V3

BAG G


1x RT017-12-TI

BAG H


1x Sandpaper 2K & 3K

BAG K


8x RT007 V3

BAG O

X2

1x RT009 V3

1x RT006 V3

BAG J

19x RT001-6-SS (STEEL)

3x RT004-3 V3

1x RT079-4.1 V3

BAG L

1x RT088-RC2-V3

X2

1x RT088-SL V3

X2

1x RT016 V3

1x RT008.1 V3

BAG M

1x RT080 V3

Parts list + Option parts

BAG S

- 5x Screw M2 6mm – Bag S2
- 13x Screw M2 5mm – Bag S3
- 11x Screw M2 4mm – Bag S4
- 4x Screw M2 5mm – Bag S5
- 2x Screw M2 4mm – Bag S6
- 4x Screw M2 2mm – Bag S7
- 2x Screw M2 5mm – Bag S8
- 4x RT106-1 – Bag S9
- 4x RT111-2 – Bag S10

BAG T

1x Allen key 0.9mm

1x Screwdrivers Torx T6

BAG P

X2  1x RT089-P V3

4x Perches Oring

X2  2x RT089-R V3

BAG U

X2 

1x RT060-0

X2 

1x RT066-3

BAG R

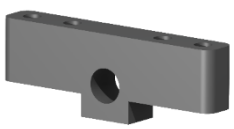
1x RT025 V3

1x RT088-2 V3

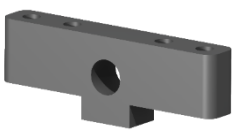
Optional parts

1° knuckle
RT004-1 V3

Ride height shims
RT056 V3

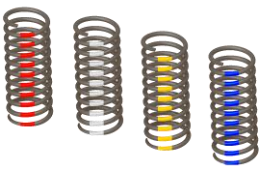


3mm rear roll center slider
RT088-3 RC3 V3

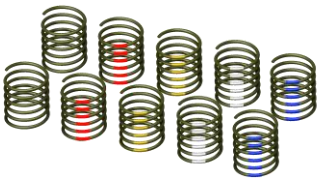


4mm rear roll center slider
RT088-3 RC4 V3

Front springs
RT068 V1.2



Center springs
RT079-SKV3



Side springs
RT089-SK V3

Black spur gear
RT078-S-MC-53

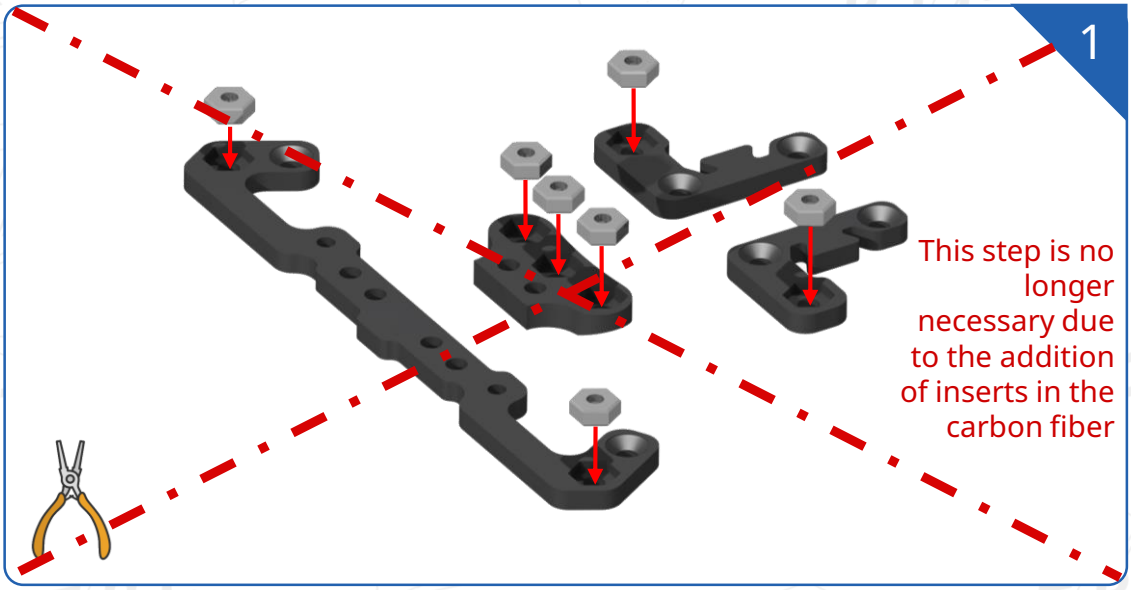
Aluminium balls 3mm
RT001-6-AL

Titanium balls 3mm
RT001-6-TI

Titanium wheel axle
RT005.1-TI V3

Carbon parts preparation + Perches

1



This step is no longer necessary due to the addition of inserts in the carbon fiber

BAG A

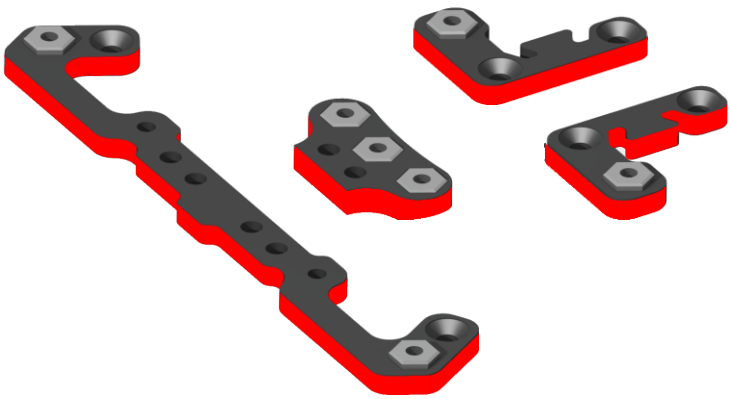
1x RT069.1 V3

1x RT022.1 V3

1x RT015.1 V3

1x RT015.1 V3

2



We strongly recommend adding some glue on the edge of all carbon parts.

BAG P

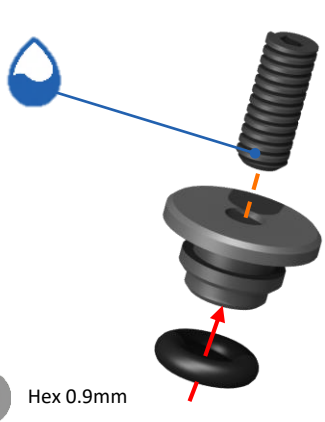
2x RT089-P V3

2x Perches oring

BAG S

2x 5mm – Bag S8

3



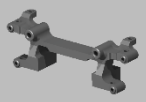
BAG S

2X 4mm
- Bag S6

BAG J

2X 3mm (STEEL)

BAG F

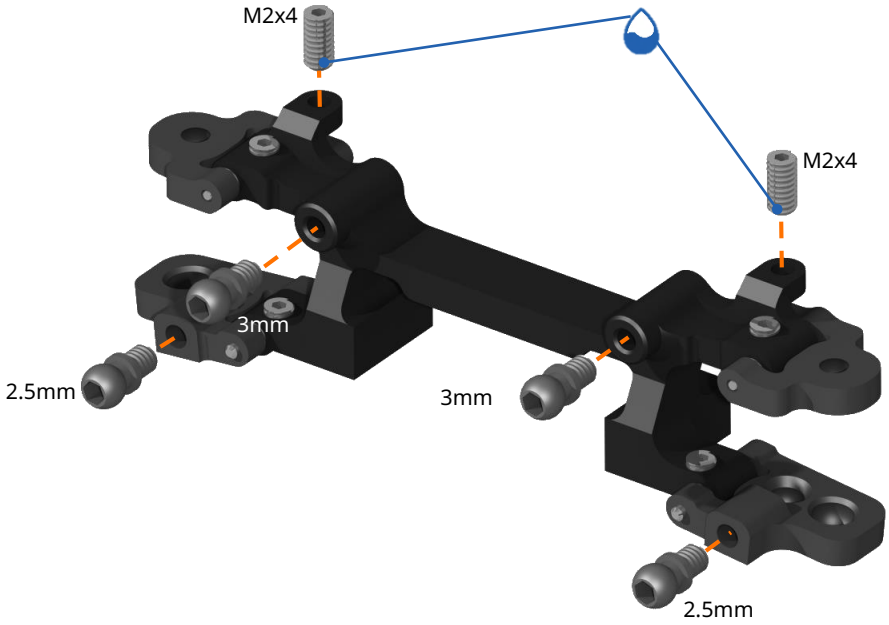


1x RT003-1 V3

BAG O

2X 2.5mm

4



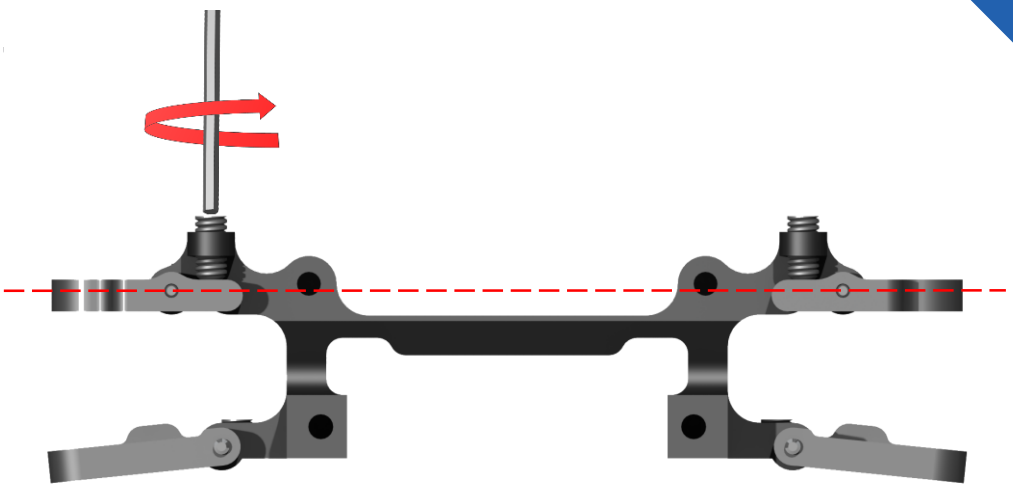
Hex 1.5mm

Hex 0.9mm

BAG T

1x Allen screwdriver 0.9mm

5



Align the upper suspension arms parallel to the ground by adjusting and tightening the droop screws.

Hex 0.9mm

Knuckle + turnbuckle

BAG F

1x RT004-L2
& R2 V3

1x RT005.1 V3

BAG J

4X 3mm (STEEL)

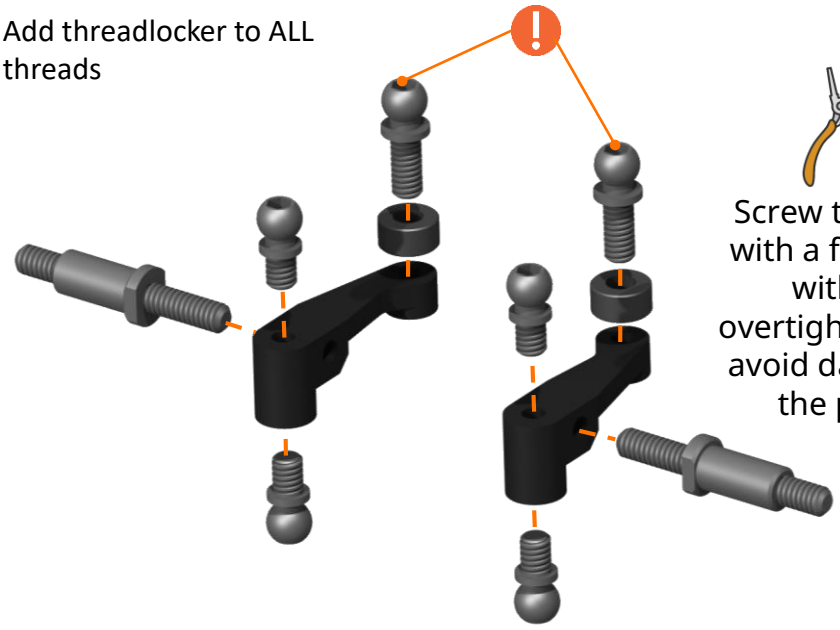
2x 3mm long
(ALU)

BAG S

2x 2MM
- Bag S10

6

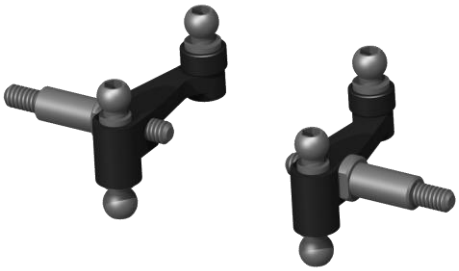
Add threadlocker to ALL threads



Screw the axles with a flat pliers without overtightening to avoid damaging the parts.

Hex 1.5mm

RT005 V1.2 axles are compatible with the V3



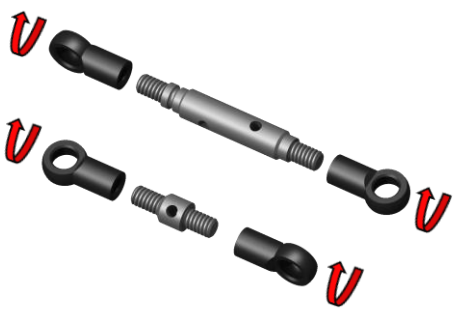
BAG F

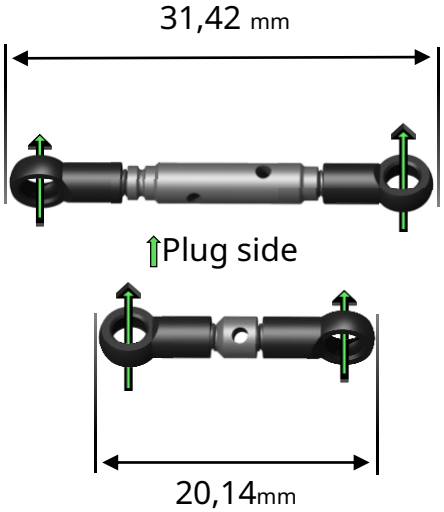
1x RT011-L & R V3

BAG C

4x ball cap 3mm

7



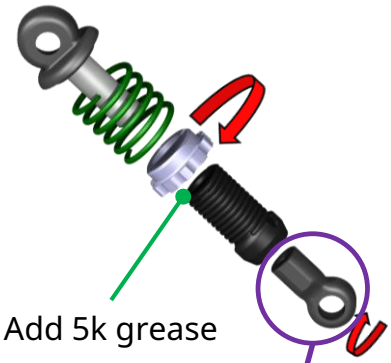


BAG O

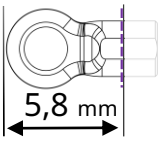
2x RT009 V3

2x RT006 V3

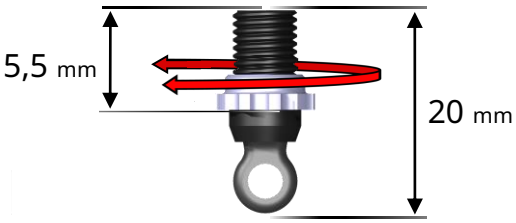
8



X2



Cut the ball cap at 5,8mm before screwing it on.



Set the suspension to this value. You will likely need to readjust it after fully assembling the chassis. Measure from the bottom of the locking ring to the top of the tube.

BAG F

1x RT002 V3

BAG S

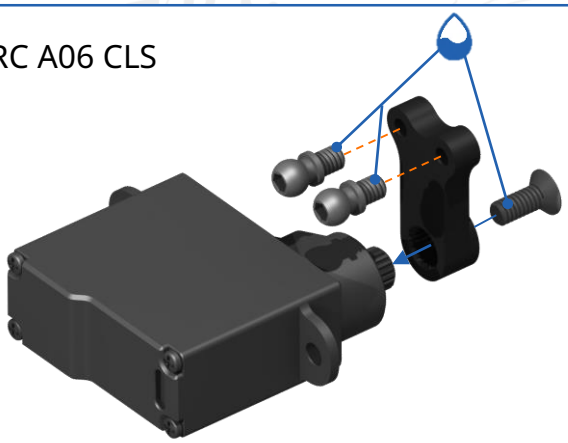
1x 5mm Bag S3

BAG J

2x 3mm (STEEL)

9

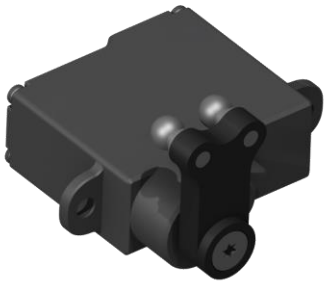
RT097 V2 / AGFRC A06 CLS V2



Hex 1.5mm

Torx T6

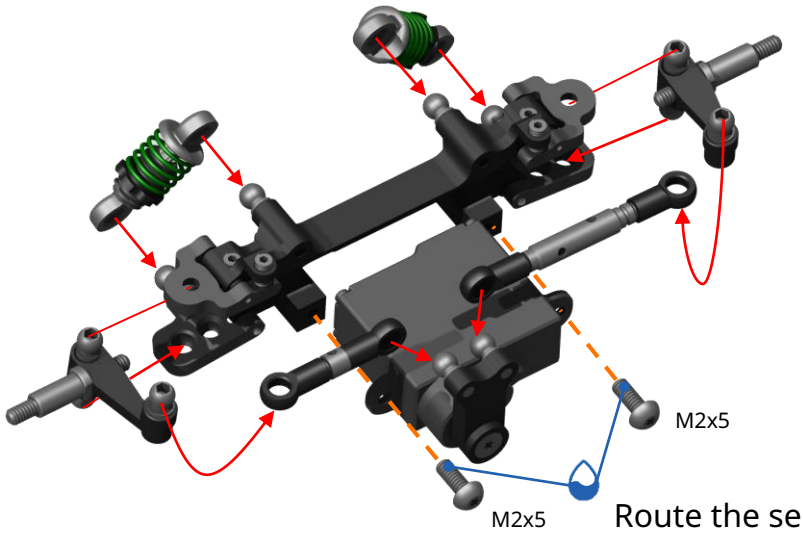
Turn on the servo before aligning the servo horn.



BAG S

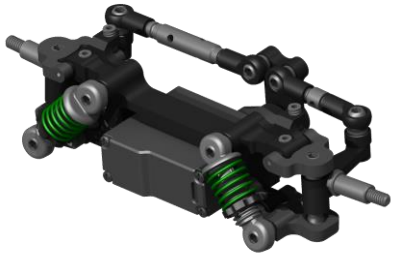
2x 5mm
- Bag S5

10



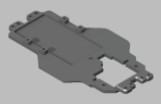
Torx T6

Route the servo cable through the slot under the bar.



Check carefully that the arms move freely through their full range without binding and without excessive play.

BAG M



1x RT080 V3

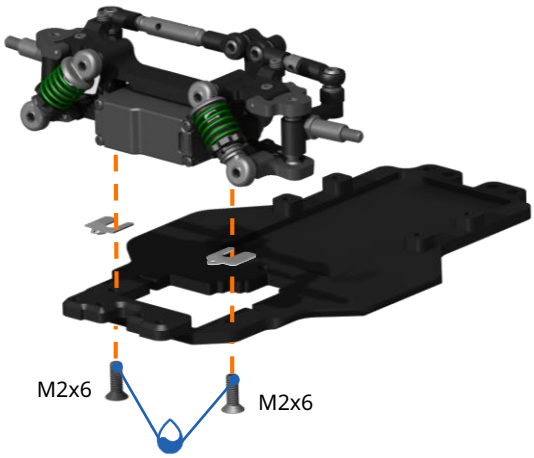
BAG S

2x 6mm
- Bag S2

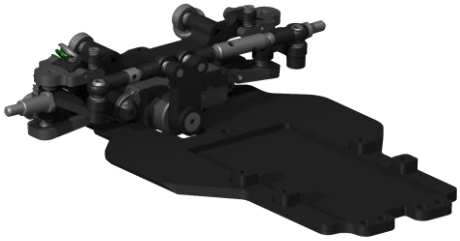
Option

Ride height shim
RT056 V3
OR
RT111

11



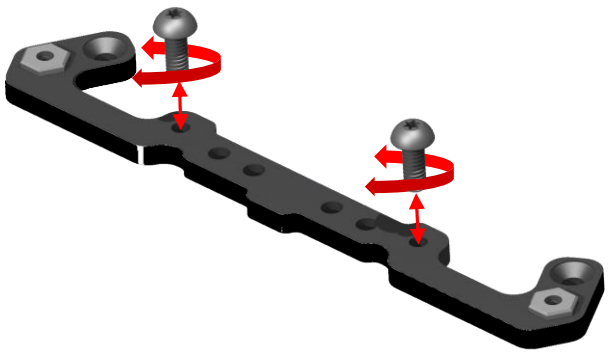
Torx T6



BAG S

2x 5mm
- Bag S5

12



Use screws to tap the carbon. Fully tighten the screws, then remove them.

Torx T6

BAG J

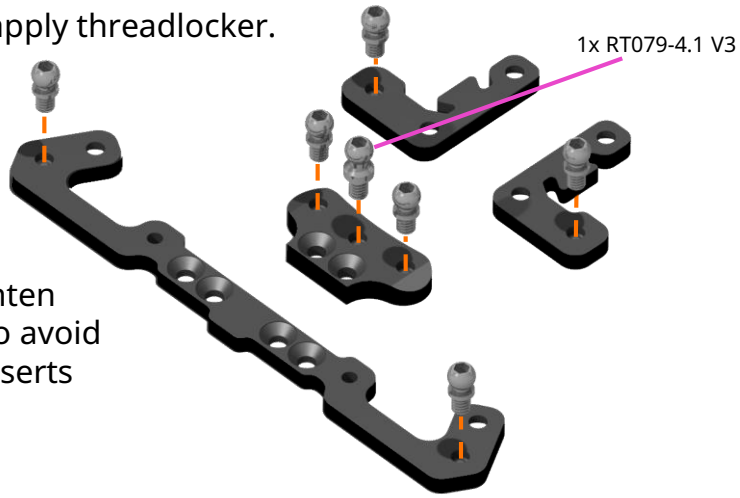
6x 3mm
(STEEL)

1x RT079-4.1 V3

13

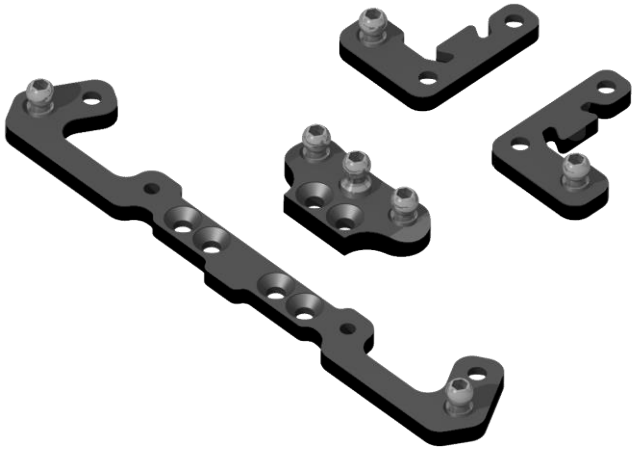
RT079-4.1 V3 is made of aluminum. Do not overtighten.

Do not apply threadlocker.

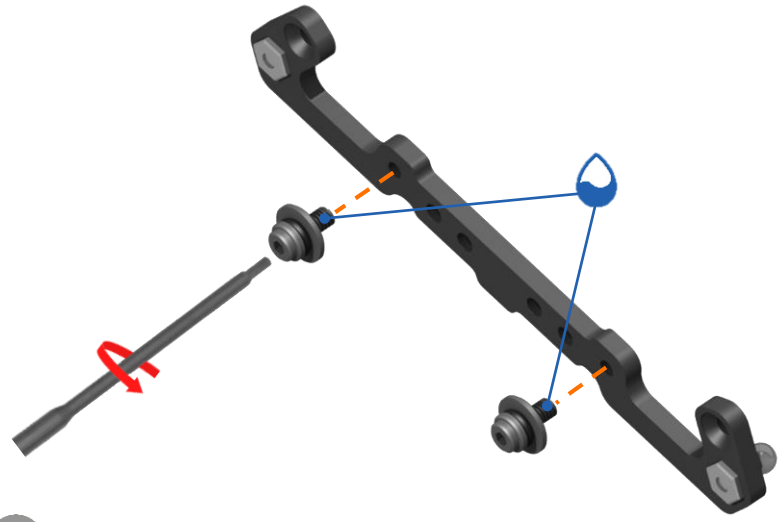


Do not overtighten the ball studs to avoid stripping the inserts in the CF parts

Hex 1.5mm



14



Hex 1.3mm

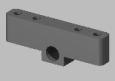
Set the perches against the carbon plate.

BAG S

4x 5mm – Bag S3

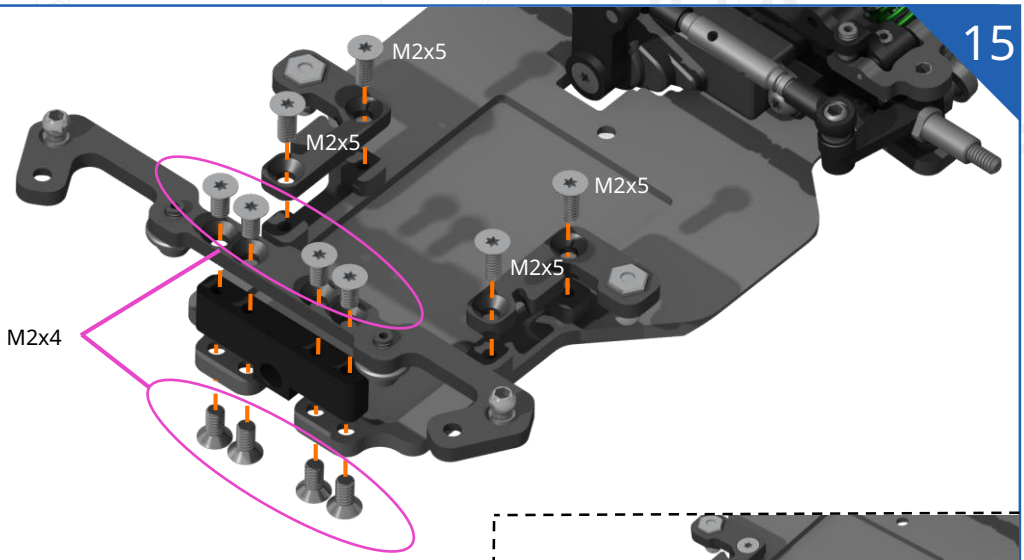
8x 4mm – Bag S4

BAG L



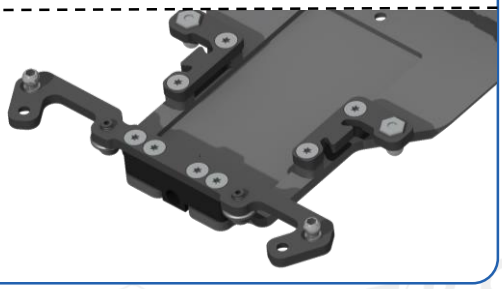
1x RT088-RC2-V3

15



Add Thread lock to every screw

Torx T6



Rear pod + Side link assembly

BAG S

- 2x Vis M2 6mm – Bag S2
- 2x Vis M2 5mm – Bag S3
- 2x RT111-2 Bag S10

BAG J

- 3x 3mm (STEEL)

BAG R

1x RT025 V3

1x RT088-2 V3

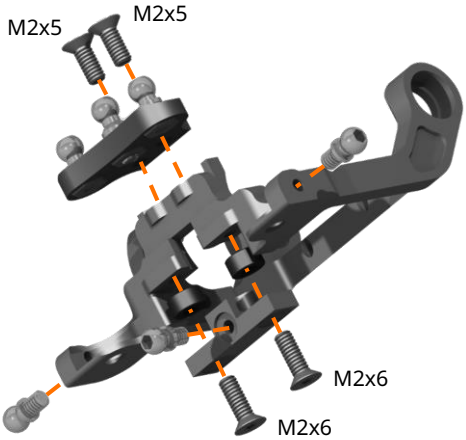
BAG L

2x RT088-SL V3

BAG C

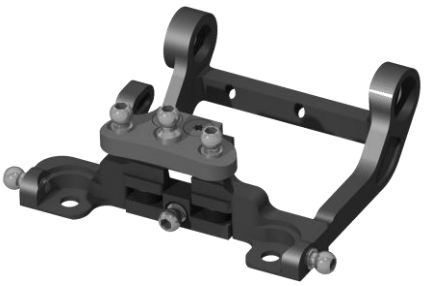
4x ball caps 3mm

16

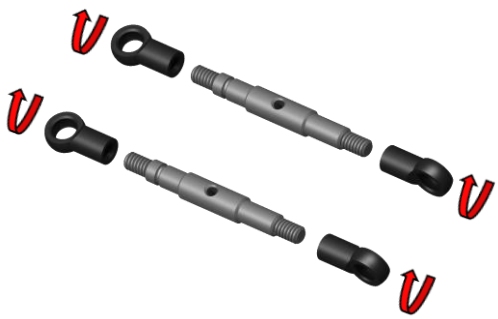


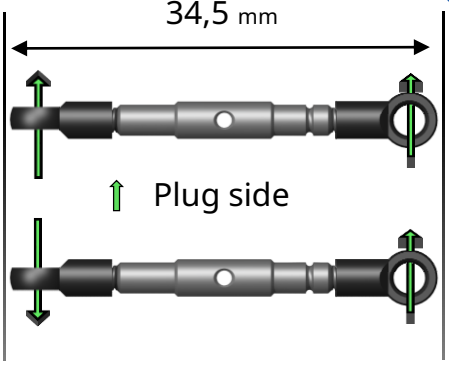
Hex 1.5mm

Torx T6



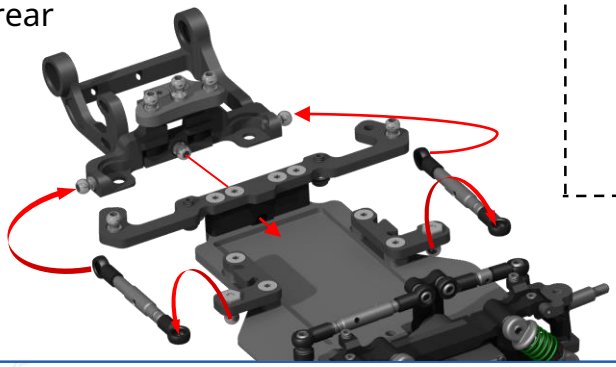
17

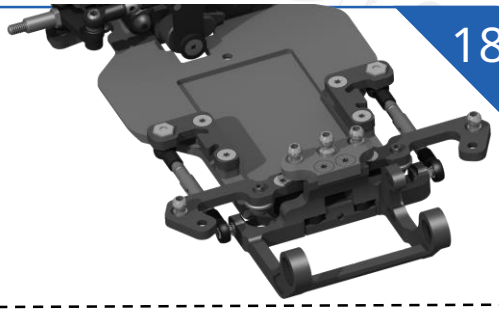




18

Before assembly, check if the links are free on both sides, front and rear



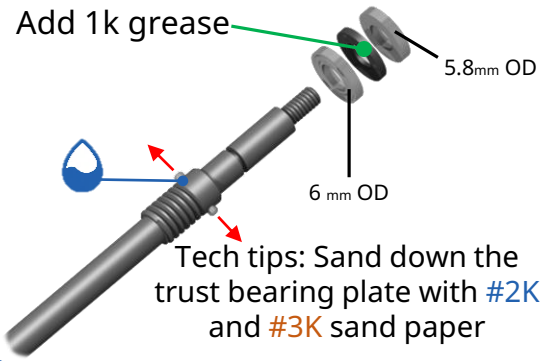


BAG D

1x RT078-3 V3

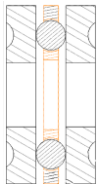
1x Thrust bearing set

19



Tech tips: Sand down the trust bearing plate with #2K and #3K sand paper

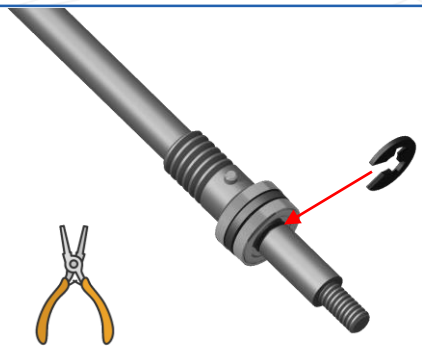
Install the thrust bearing washers with their flat face against the ball cage. This orientation ensures smooth differential operation and excellent freedom of movement.

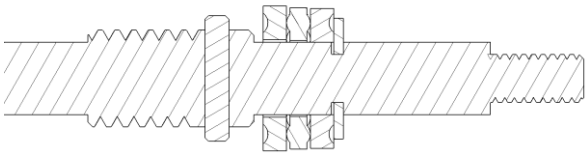


BAG D

1x Diff E clip

20





BAG D

2x RT078-1 V3

10x RT078-2 V3

1x RT078-4 V3

1x RT078-5 V3

1x RT078-S-MC-53

1x RT078-7 V3

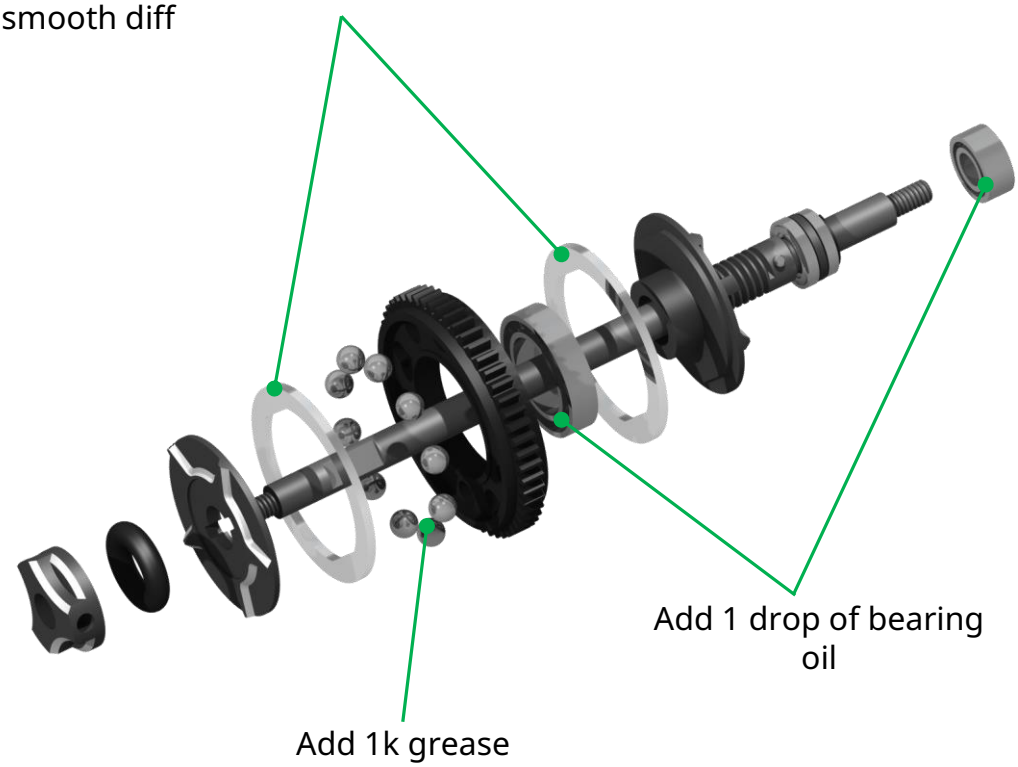
1x RT007 V3

1x Spur bearing

1x Diff Oring

21

Tech tips: Sand down the contact surface with the #2000 and #3000 sandpaper for a perfect smooth diff



Differential asembly + Center damper

BAG D

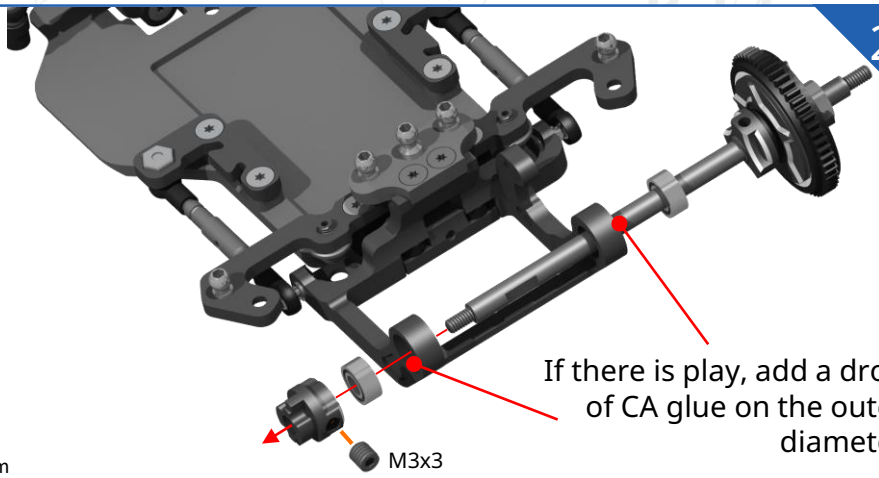
1x RT078-8 V3

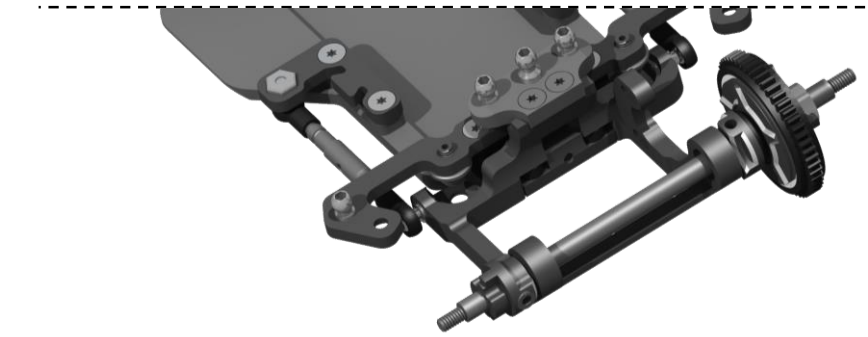
1x Screw M3

BAG K

2x RT007 V3

22





Hex 1.5mm

BAG L

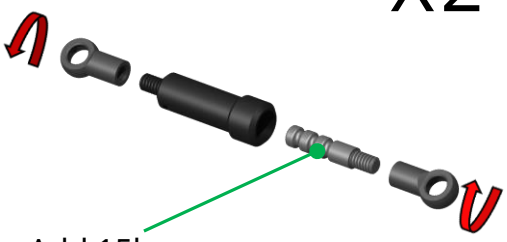
2x RT016 V3

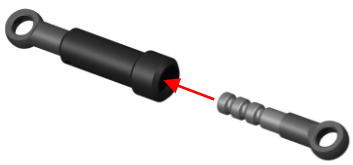
BAG C

4x Ball cap 3mm

23

X2





BAG E

1x RT009 V1.2

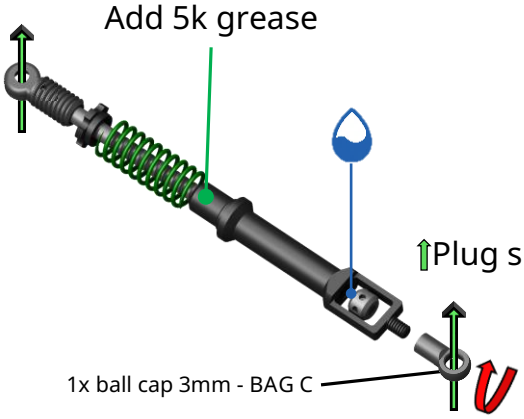
1x RT079-1 V3

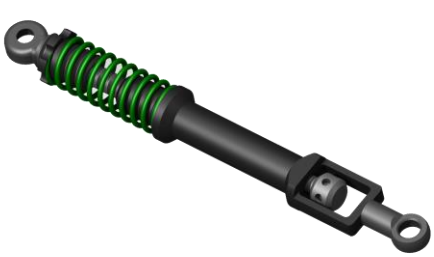
1x RT079-2 V3

1x RT079-3.1 V3

1x RT079-R V3

24





Battery holder + Hydraulic assembly

BAG A

1x RT008-B V3

BAG J

1x RT004-3 V3

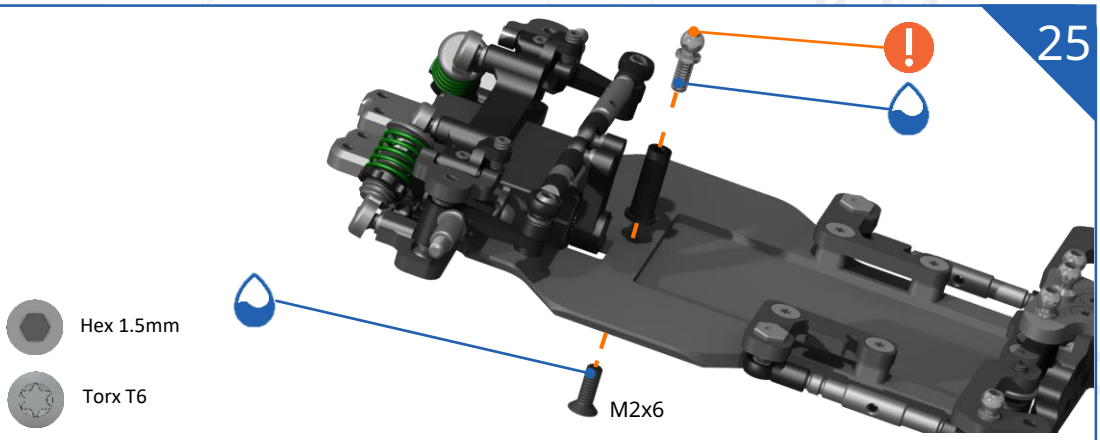
BAG L

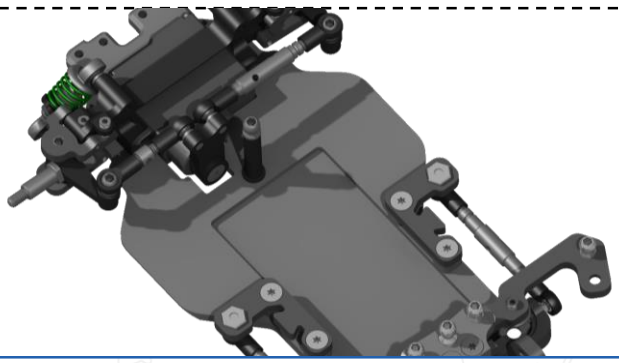
1x RT008.1 V3

BAG S

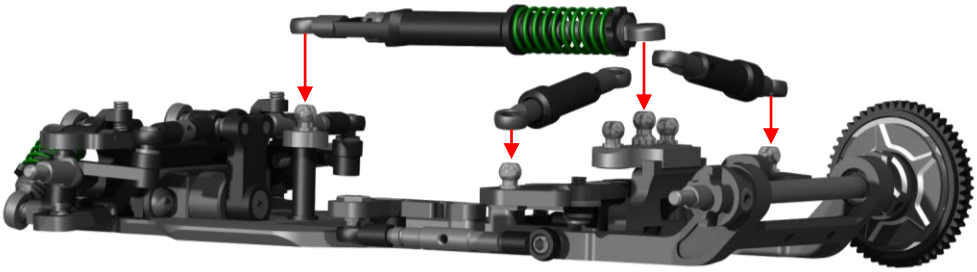
1x 6mm
- Bag S2

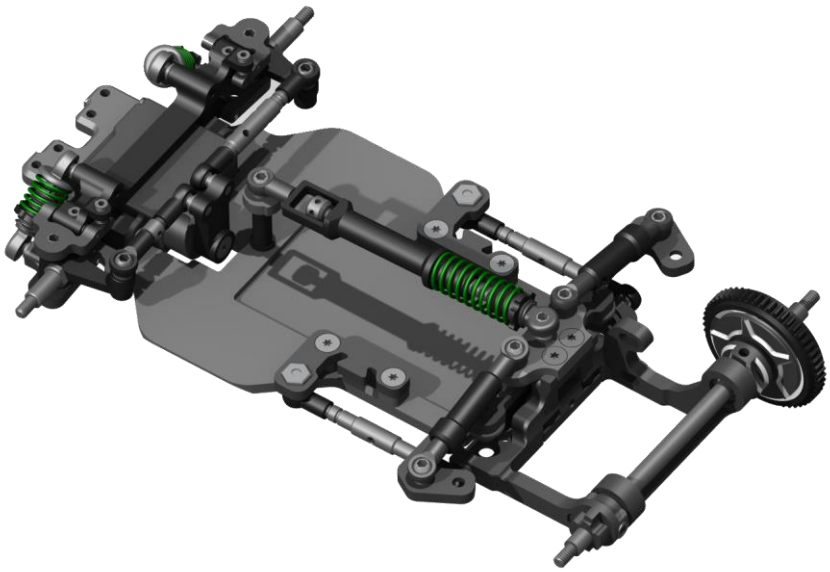
25





26





Front bumper assembly

BAG B

1x Carbon plate

1x 3D bumper

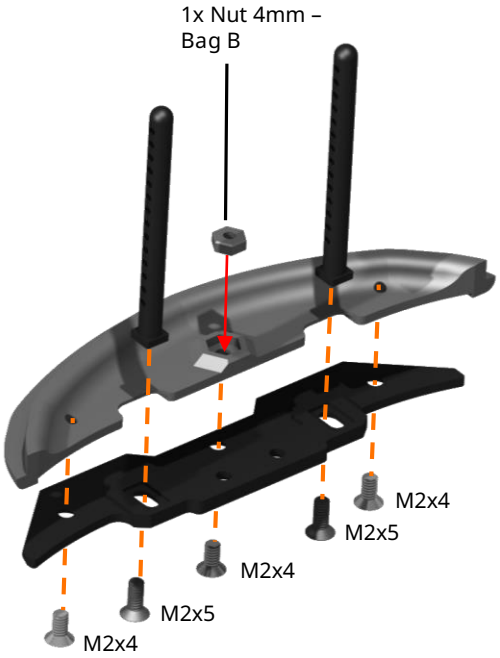
2x Lexan post

BAG S

3x 4mm
– Bag S4

2x 5mm
– Bag S3

27



Torx T6

BAG B

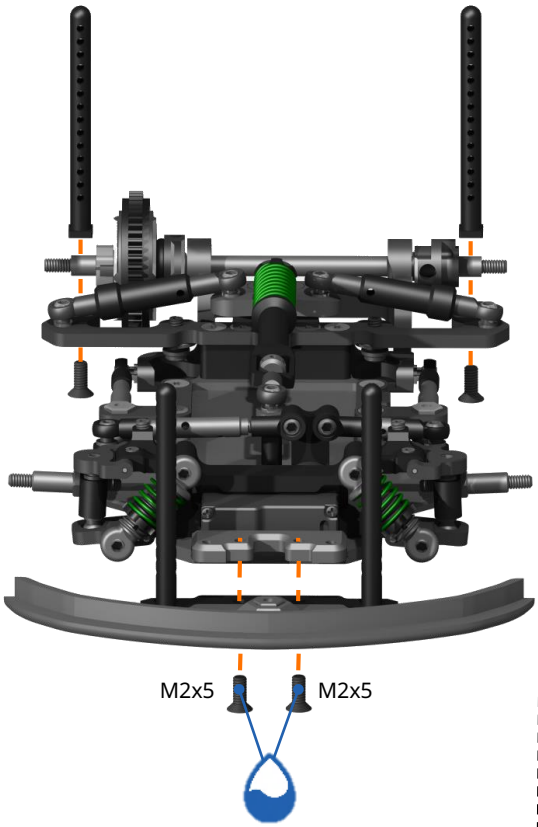
2x Lexan post

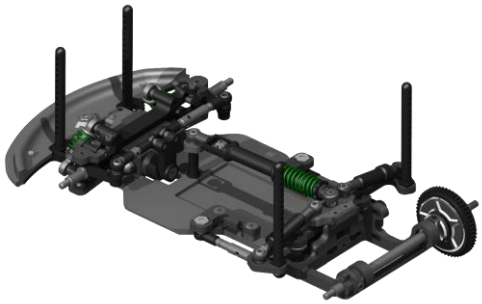
BAG S

4x 5mm
– Bag S3

28

Check the screw tightness regularly, as they may protrude from the chassis. We strongly recommend using threadlocker.



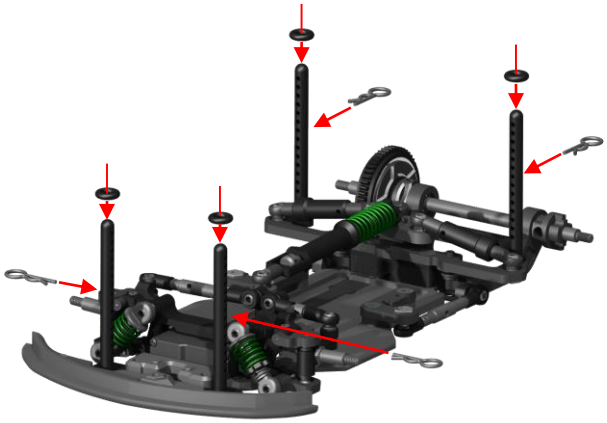


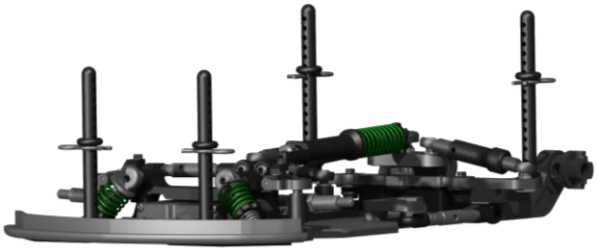
Torx T6

BAG B

- 4x O-ring
- 4x Body clip

29





BAG G

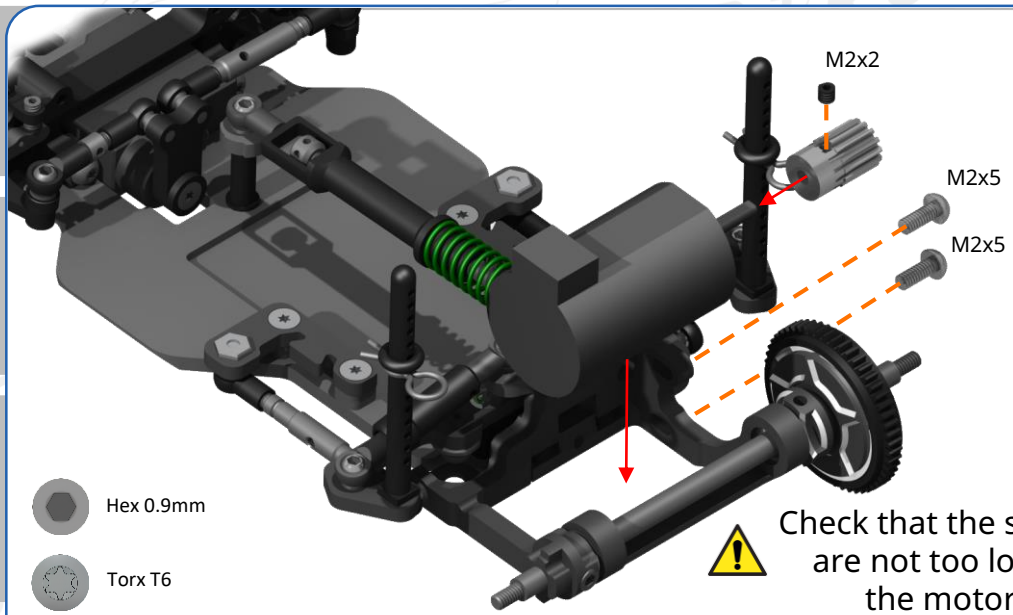
- 1x RT017-12-TI

BAG S

- 2x 5mm – Bag S5

Any brushless motor (not included)

30

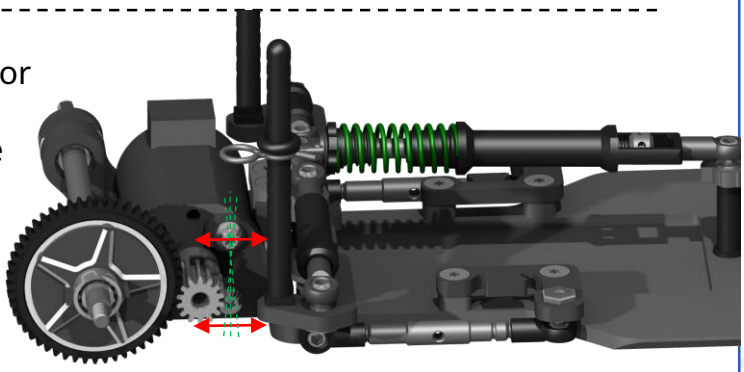


Hex 0.9mm

Torx T6

Check that the screws are not too long for the motor used.

Tip: By rotating the motor around its axis, you can adjust its height relative to the pod.

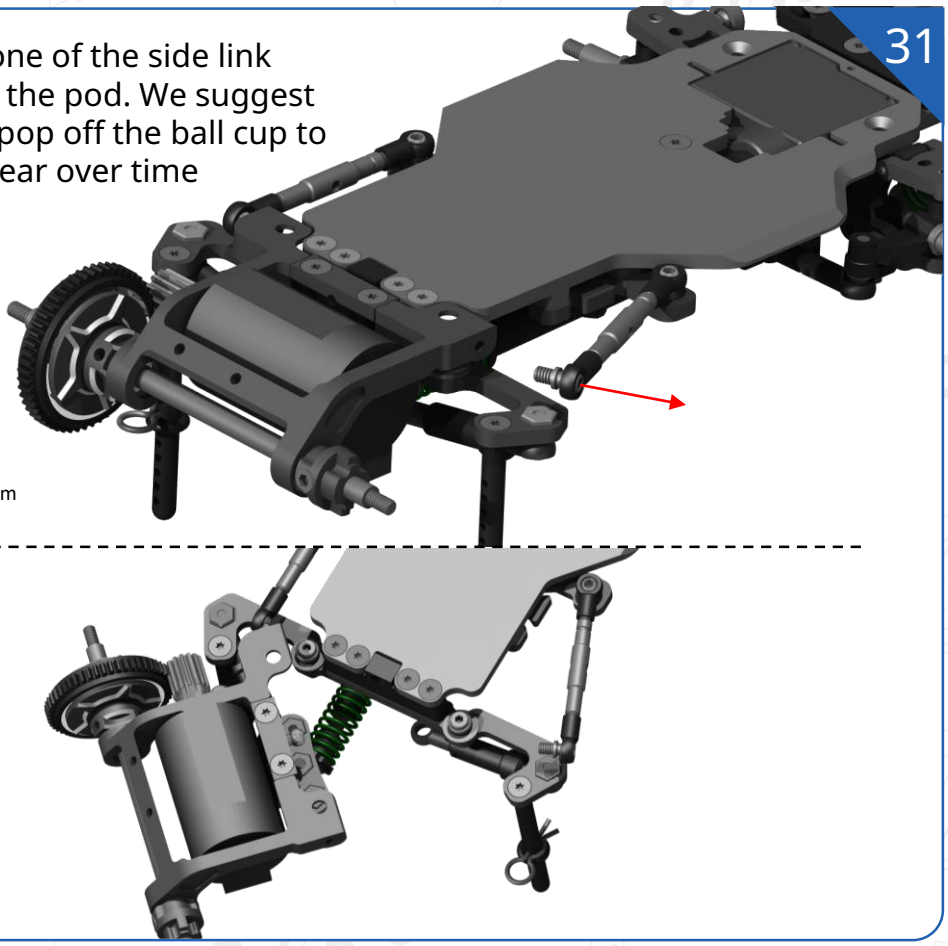


Do not forget to correctly do the mesh to have a good free wheel and a silent car

Side springs assembly

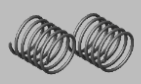
31

Unscrew one of the side link screws on the pod. We suggest you don't pop off the ball cup to prevent wear over time



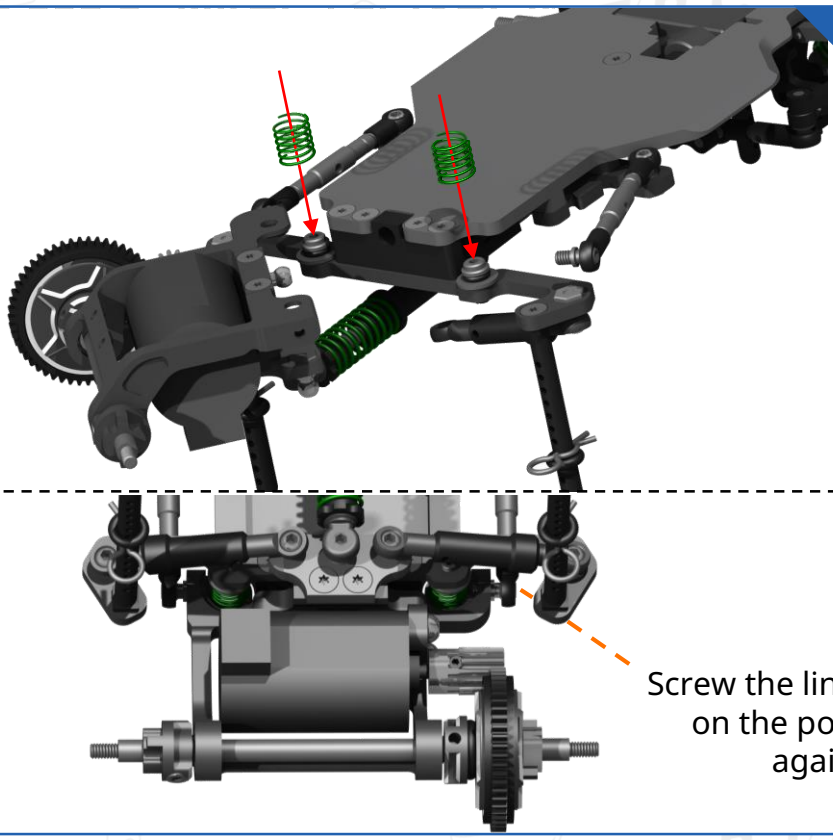
Hex 1.5mm

BAG P



1x RT089-R V3

32



Hex 1.5mm

Screw the link on the pod again

BAG K

6x RT007 V3

BAG S

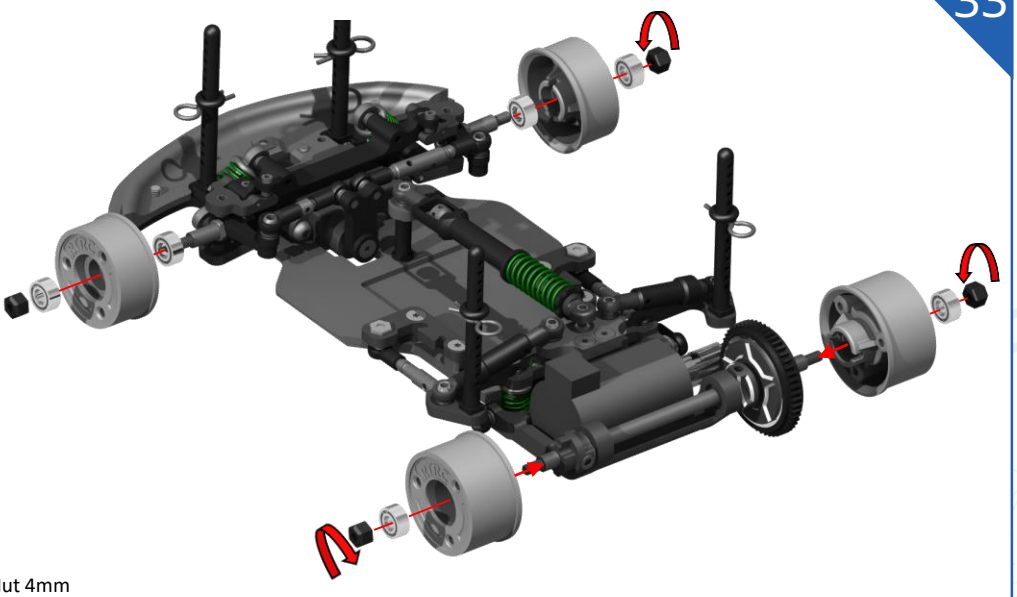
4x RT106-1 – Bag S9

BAG U

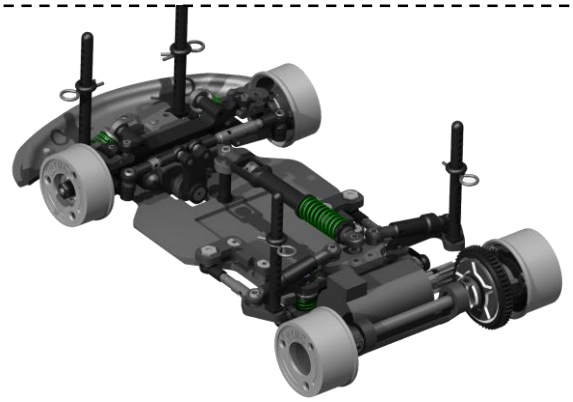
1x RT060-0

1x RT066-3

33



Nut 4mm



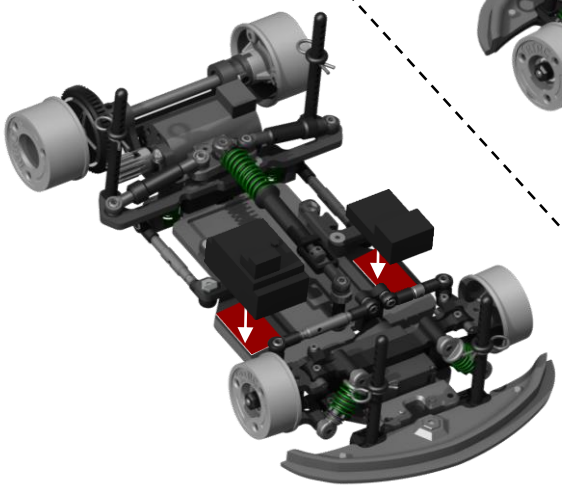
Receiver
(not included)

Speed controller
(not included)

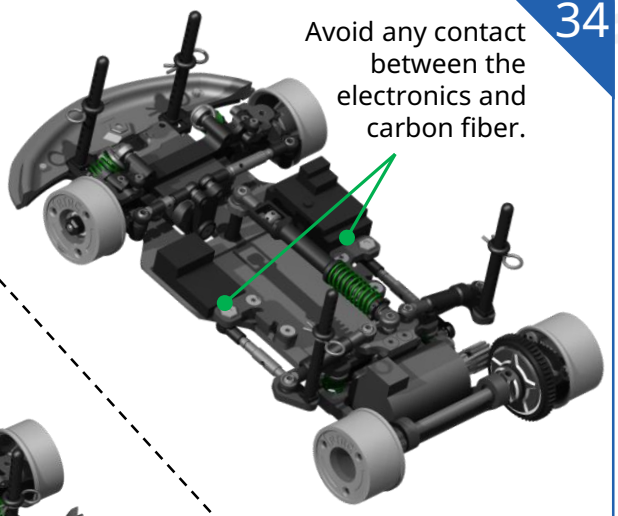
Double side tape
(not included)

34

Use thin double-sided tape under the receiver and ESC (not included)

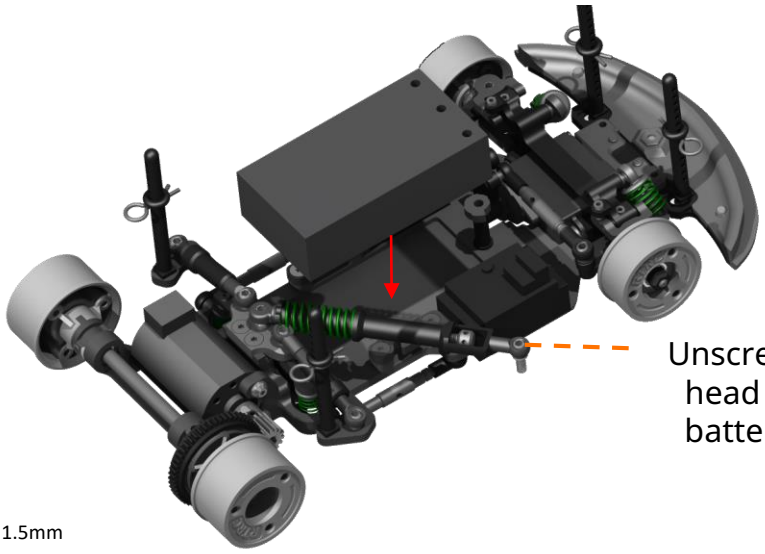


Avoid any contact between the electronics and carbon fiber.



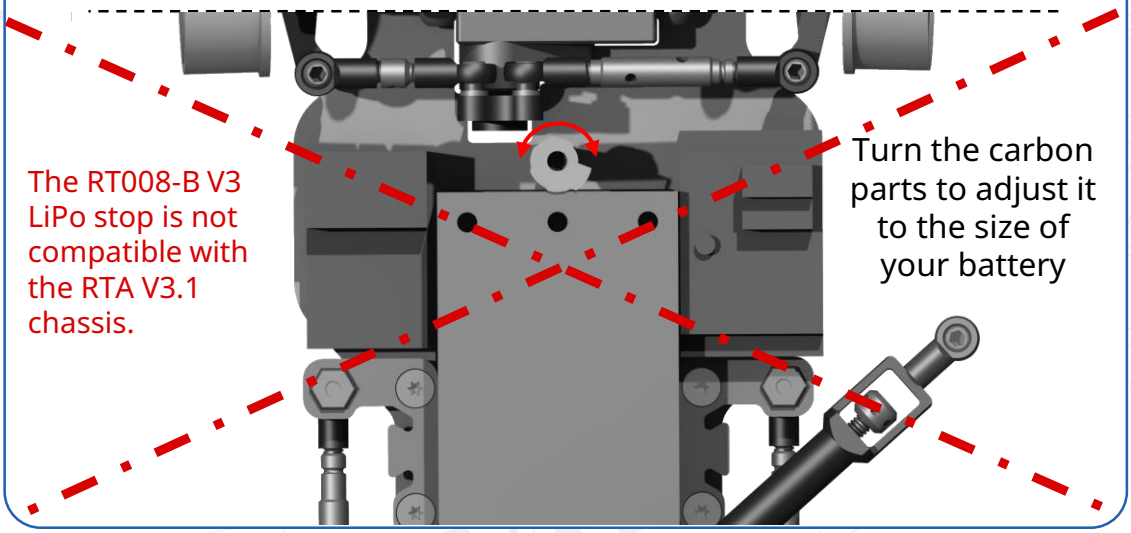
LiPo battery
(not included)

35



Unscrew the ball head from the battery holder

Hex 1.5mm

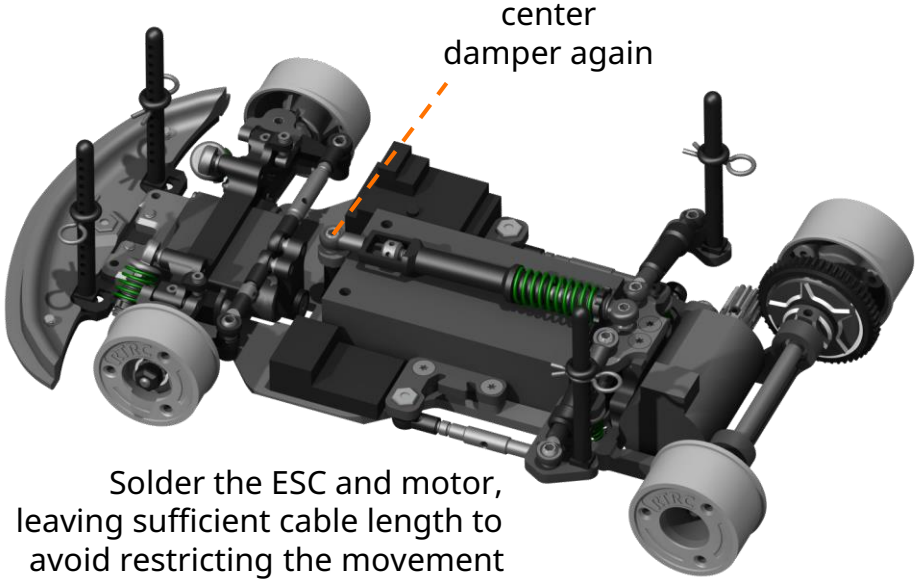


The RT008-B V3 LiPo stop is not compatible with the RTA V3.1 chassis.

Turn the carbon parts to adjust it to the size of your battery

36

Screw the center damper again

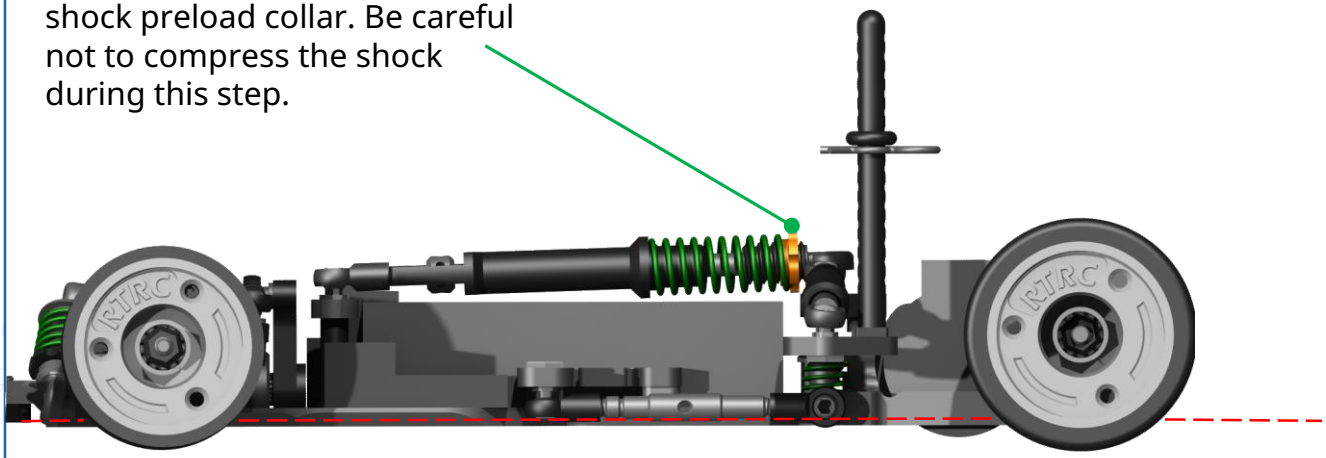


Solder the ESC and motor, leaving sufficient cable length to avoid restricting the movement of the rear pod.

Hex 1.5mm

37

Adjust the pod alignment with the chassis using the center shock preload collar. Be careful not to compress the shock during this step.

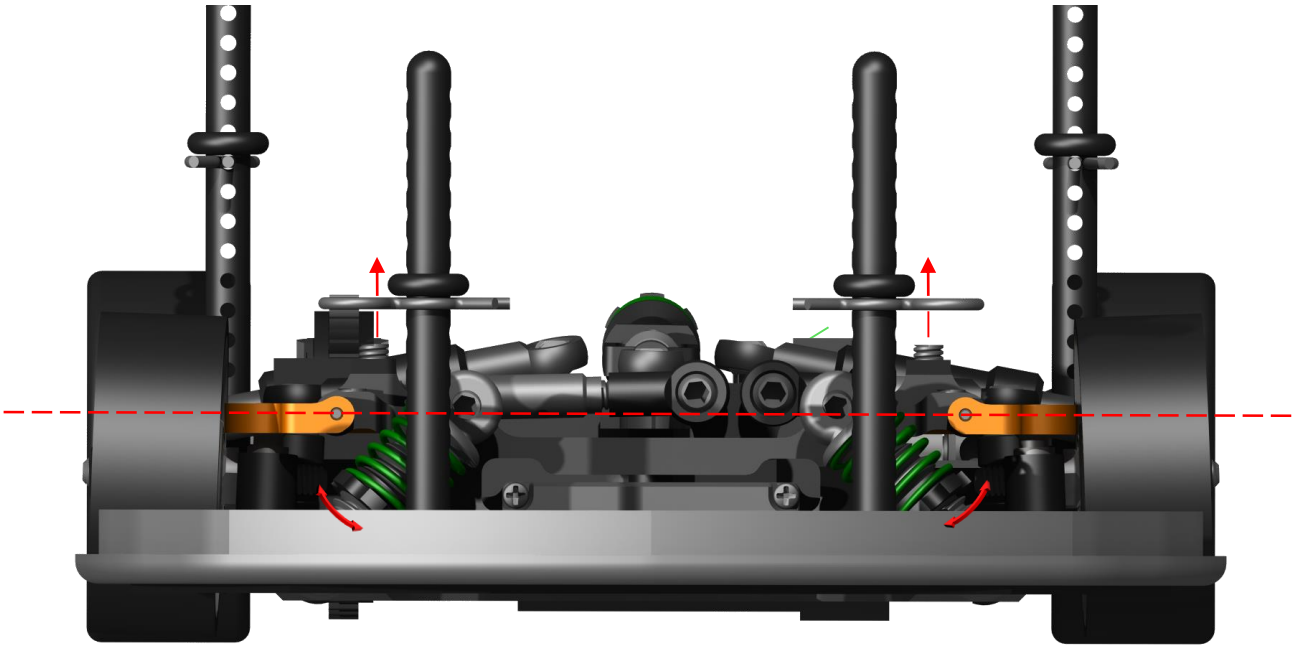


38

First step is to unscrew the droop screw by only 2 turns.

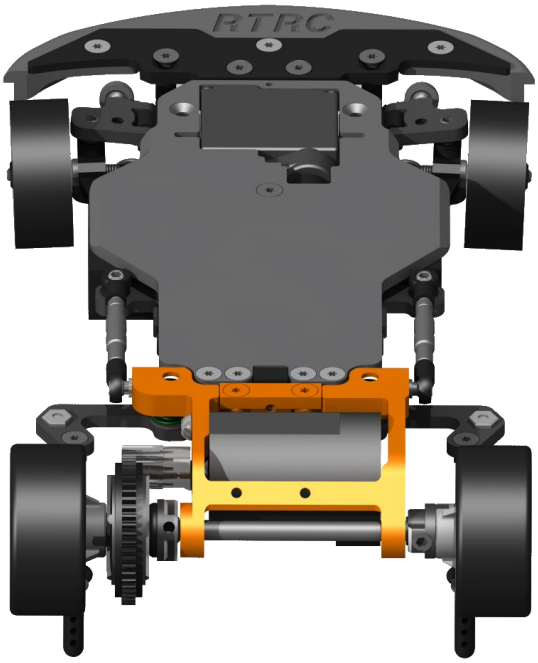
Now align both upper arms with the springs collars on the front. They should be parallel with the ground.

Tech tips: you should repeat this process whenever you change front springs



Hex 0.9mm

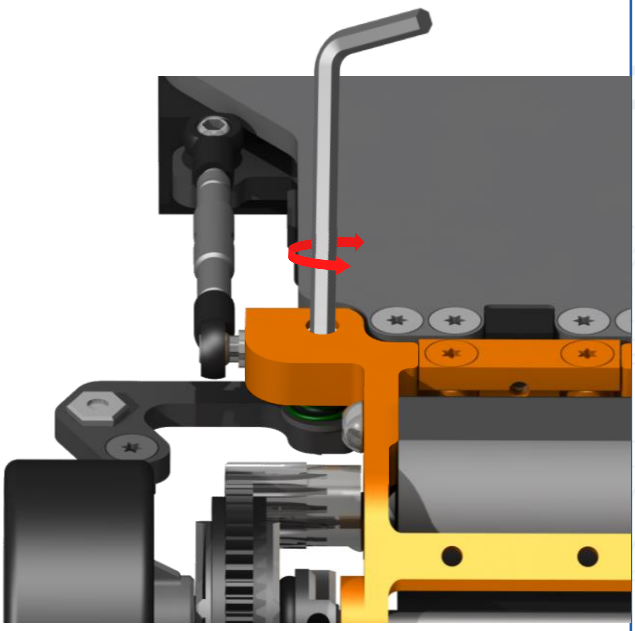
This is one of the most important things to setup, so please take your time to do it correctly. Please remove the side damper before tweaking the car.



By using the 1.3mm hex head on the perches you can adjust the tweak of the car.

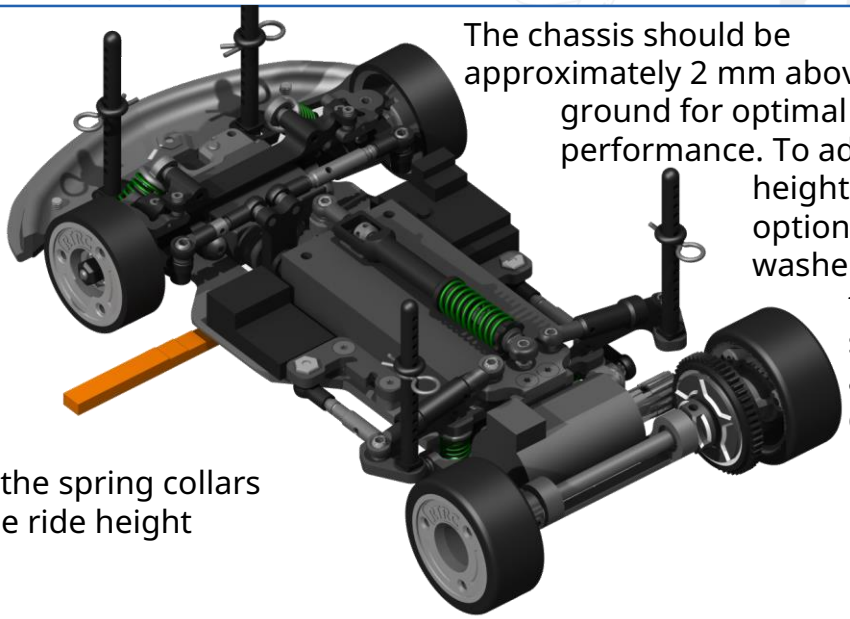
Hex 0.9mm

Screw/unswrew the perches with precision. 1/8th of a turn can make a difference



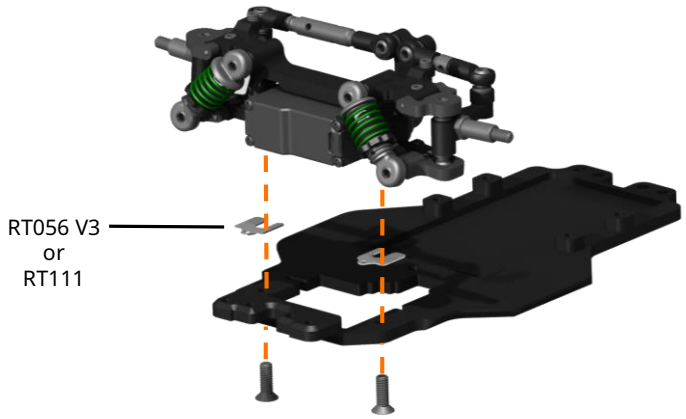
Align the pod with the chassis on both sides without applying spring preload. The springs should only be lightly touching. After adjustment, reinstall the side dampers

40



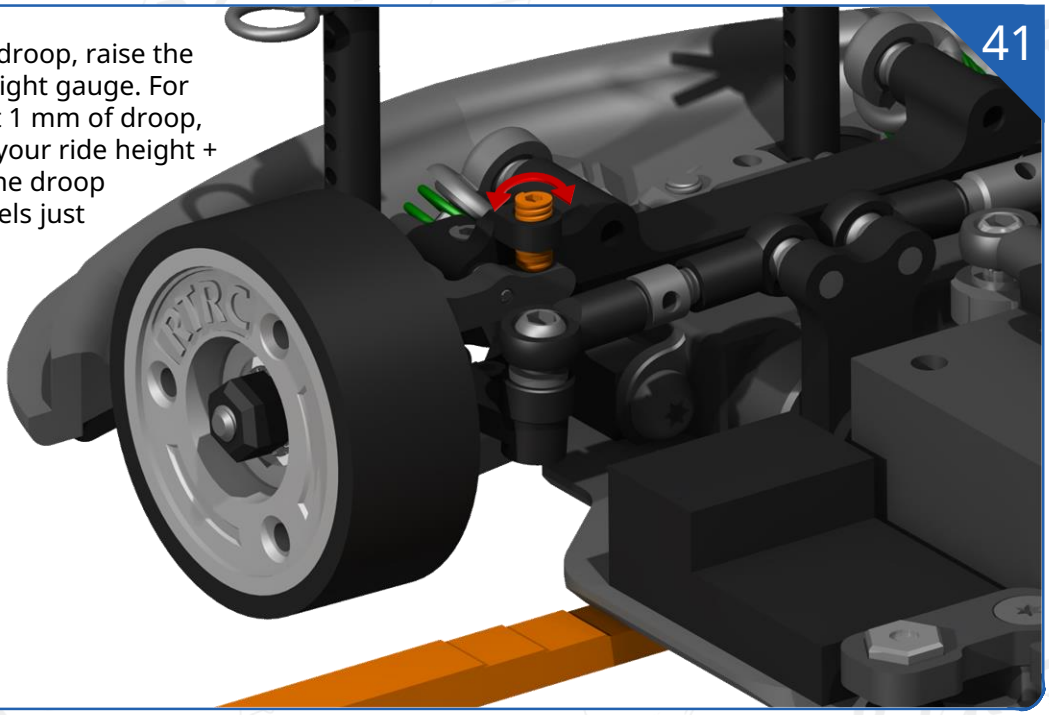
The chassis should be approximately 2 mm above the ground for optimal performance. To adjust the ride height, use optional shims or washers between the front suspension and the chassis

Do not use the spring collars to adjust the ride height



41

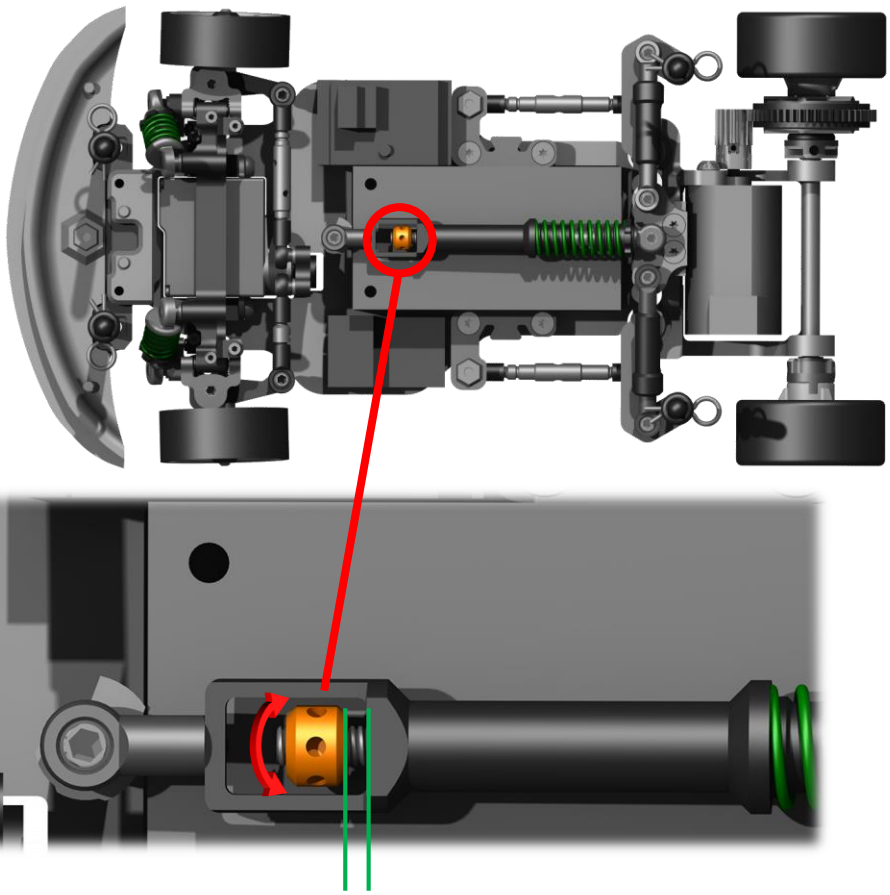
To change the front droop, raise the car using the ride height gauge. For example, if you want 1 mm of droop, set the reference to your ride height + 1 mm. Then adjust the droop screws until the wheels just touch the ground. Repeat on the other side.



Hex 0.9mm

42

To tune the rear droop you will have to use the collar (in orange) on the central damper.
Use 0.9mm screwdriver to adjust the droop

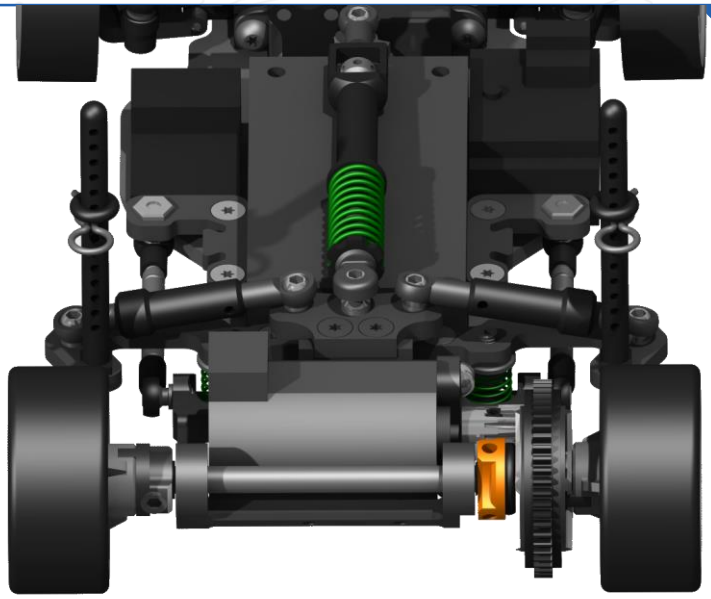


Hex 0.9mm

If you want 1mm of rear droop this gap should be approximately 1mm

43

Adjust the differential tightness according to your driving style.
A loose differential provides more steering and easier handling, but less traction when exiting corners.
A tight differential improves acceleration out of corners, but makes the car more nervous in turns.



We sincerely hope you enjoyed assembling your RTA V3, a chassis designed with precision, passion, and performance. Assembly is only the first step of an incredible experience on the track.

The entire team wishes you success, speed, and enjoyment with every battery pack. May each lap bring you confidence and performance.

If you need assistance or have any technical questions, our team is here to fully support you.
Do not hesitate to contact us; we are committed to helping you at every step of your journey.

For any additional questions, please refer to the contact details provided at the beginning of this manual.

Thank you for choosing RTRC! We look forward to seeing your achievements come to life on the track.

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