



Assembly Guide

www.gl-racing.com

A new benchmark of Low Center Gravity on 1/27 Mini RC – GLR-GT

Ver00

GL Racing and Development Team conducts a wide research and consultation for 1:27-1:28 scale RC car racing and the GLR-GT is developed and test intensively on track by GL Team Drivers and group of experienced RC car players.

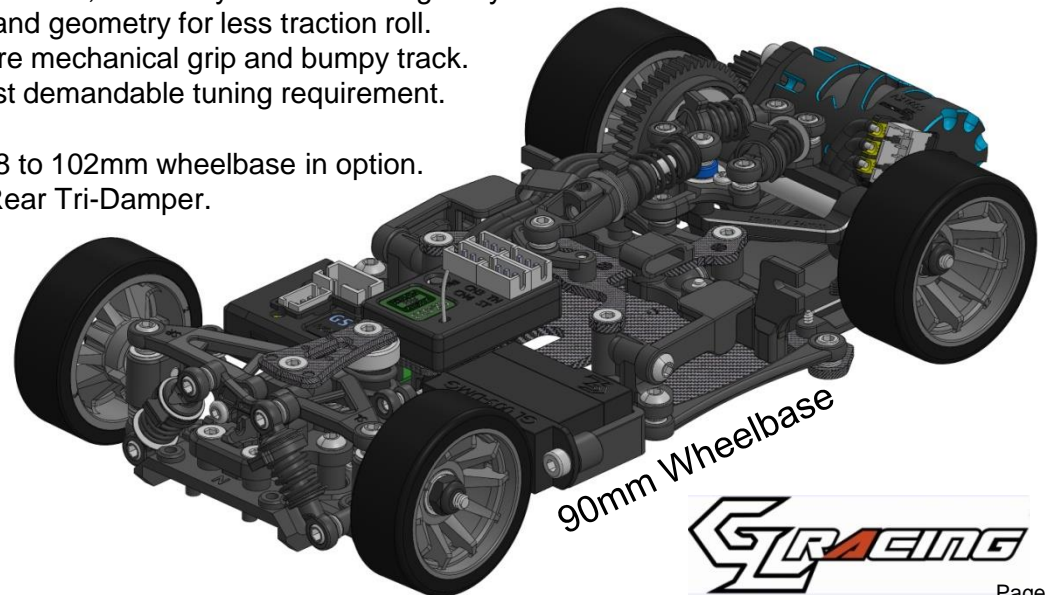
Performance is always our goal with no compromise for case of drive, adjustment, maintenance and optional upgrade. All levels of player will be benefited by a proper setup GLR-GT chassis for at least 0.5sec or more faster in average lap-times.

Traction roll is substantially reduced by further lowering down the CG, new suspension design and geometry:

1. "One layered" electronics layout without stacking to achieve the lowest and optimized CG.
2. Micro but most-wanted "Cable Routers" to ensure obstacle-free rear subframe movement.
3. "Roller-Bearing" side shock mechanism for more stroke, sensitivity and centered gravity.
4. New Long Doubled-Wishbone front suspension and geometry for less traction roll.
5. Less traction roll even with lighter springs for more mechanical grip and bumpy track.
6. New optional Front Anti-Roll Bar for fine and most demandable tuning requirement.
7. New Slide Linkage design optimized positioning.
8. Few conversion parts for switching in between 98 to 102mm wheelbase in option.
9. Stock adjustable and optional tuning Front and Rear Tri-Damper.
10. Aluminum Motor Mount for best heat dissipation.
11. Full and high quality ball bearing.
12. Lightened and ultra-smooth rear ball differential.

GL Racing products are designed and developed in Hong Kong. Our high-end and performance product is recommended for player with age of 14 or over.

Thanks for choosing GL Racing.

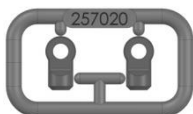


Bag A (1-5)

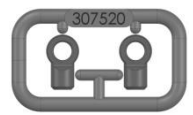
A-1



257014 x1



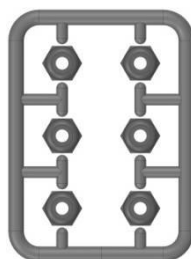
257020 x1



307520 x1



357520 x1



Lock Nut x1

A-2



G1 x1



G2 x1



G6 x1



G7 x1



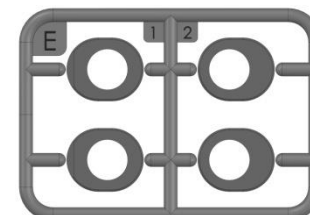
G3 x1



G4 x1

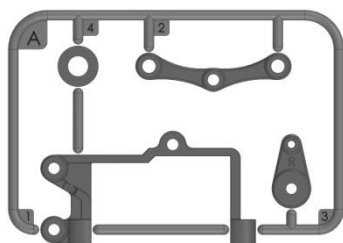


G5 x1

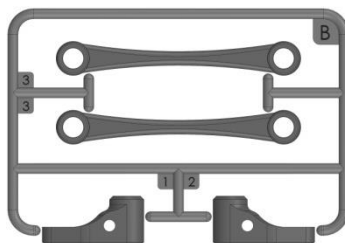


E Pack x1

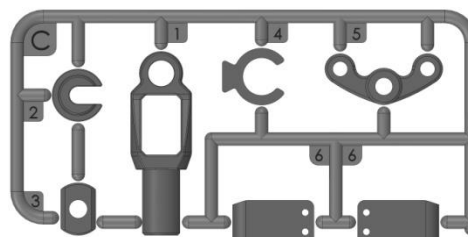
A-3



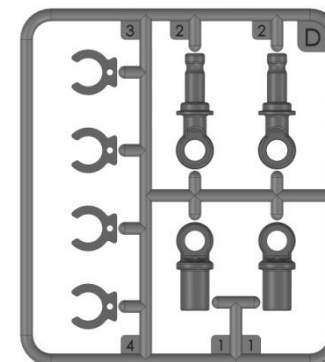
A Pack x1



B Pack x1



C Pack x1



D Pack x2

Bag A (1-5)

A-4



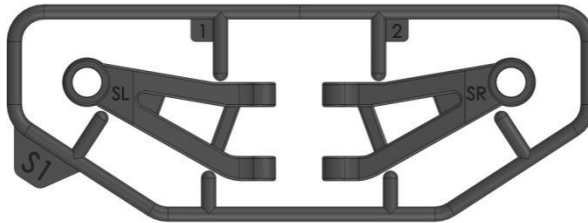
G8a x1



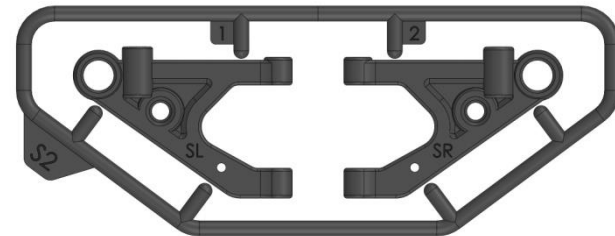
G9a x1



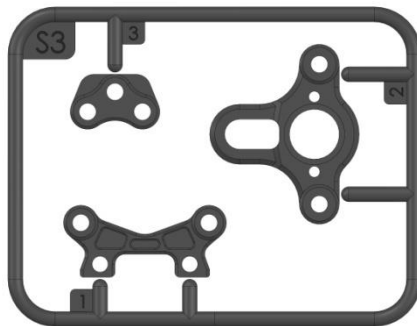
G10a x1



S1 Pack x1



S2 Pack x1



S3 Pack x1

A-5 (Pinion Gear from 9T to 14T)



9T x1



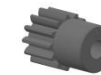
10T x1



11T x1



12T x1



13T x1



14T x1

Bag B

B-1



G12 x1



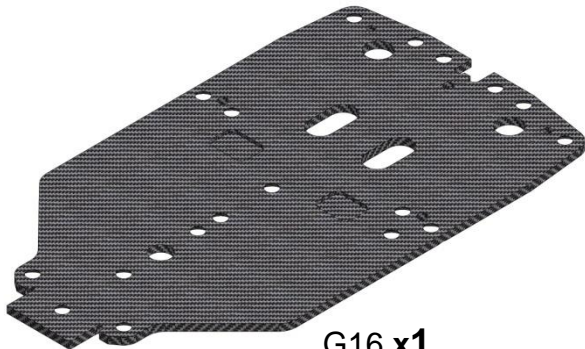
G14 x1



G13 x1



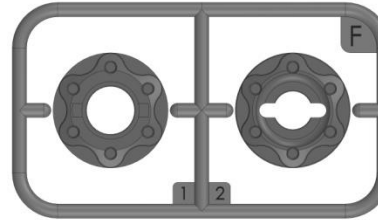
G15 x1



G16 x1

Bag C (1-8)

C-1



F Pack x1



53T x1



H1 x1



H2 x10
(Ball 2.381mm)



H3 x1
(Alloy)



H4 x1
(Alloy)



BE-3625 x1
(3x6x2.5)mm



H5 x1



M3x3 Grub x1



H6a x1



H7 x2

Bag C (1-8)

C-2

Hard (0.9)
(Black)



SP-3 x1

Soft (0.8)
(Red)



SP-4 x1



G11 x1



G17 x1
(Alloy)



G18 x1
(Alloy)



G19 x1

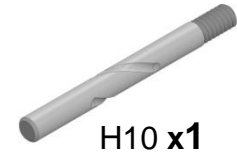
C-3



H8 x2



H9a x2
(12mm Length)



H10 x1



2x4x1.5 x1



PI-1516 x2
(1.5x16mm)



PI-15115 x2
(1.5x11.5mm)



H11 x1
(Ø1.5x6mm
Threaded Rod)

C-4



H12 x4
(BS-2502)



H13 x12
(BS-3025)



H16 x1
(BS-3580)



H14 x4
(BS-3540)



H15 x5
(BS-3520)

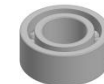
C-5



BE-3620 x2
(3x6x2)mm



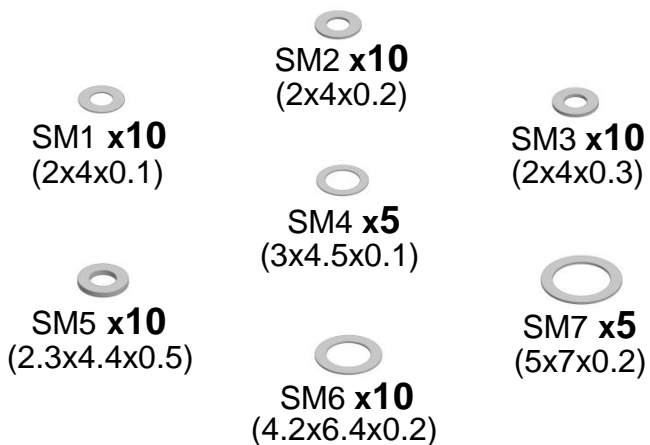
BE-2523 x1
(2x5x2.3mm with Flanged)



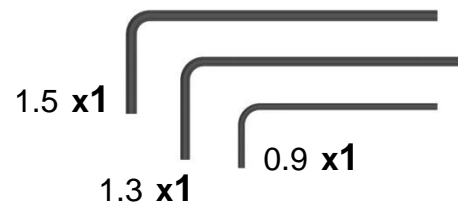
BE-3625 x7
(3x6x2.5)mm

Bag C (1-8)

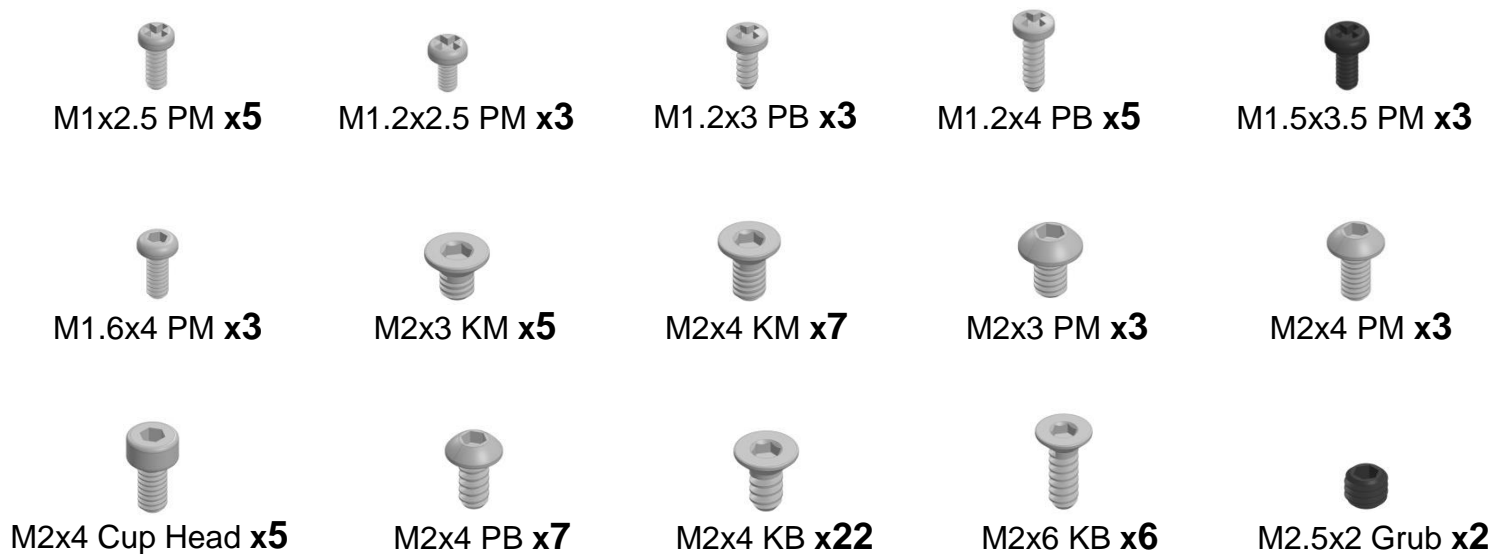
C-6



C-7



C-8



D-1



GT-S-035 x1
(GL003 DMG)



SP-1 x4
(Ø5.3x6.5)mm



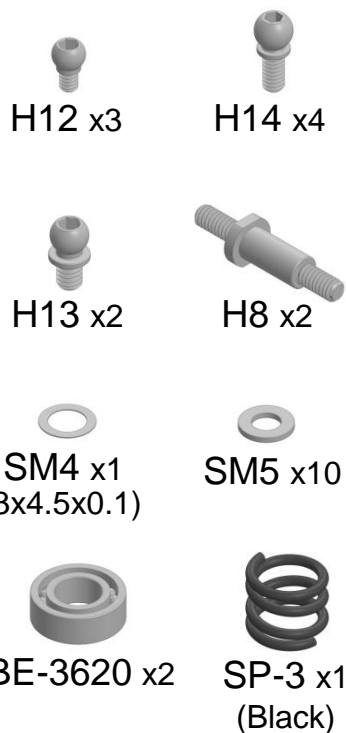
SP-2 x1
(Ø6x11)mm



GT-S-036 x1

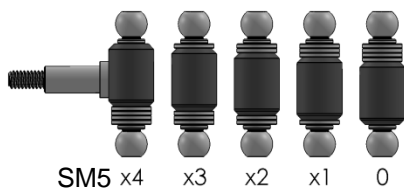


G20a x1
(Alloy)



****Front Ride High Adjustment****

Down ← → UP



Switching the spacer SM5 to top for the adjustment

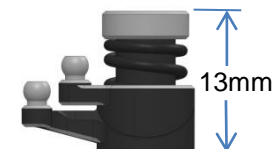
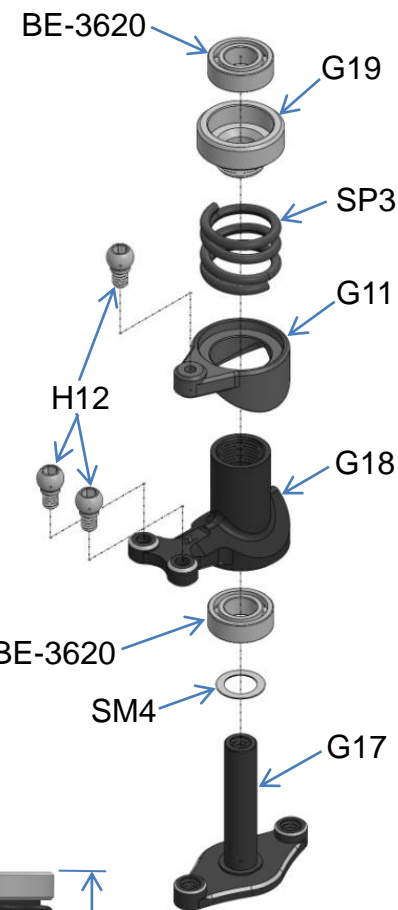
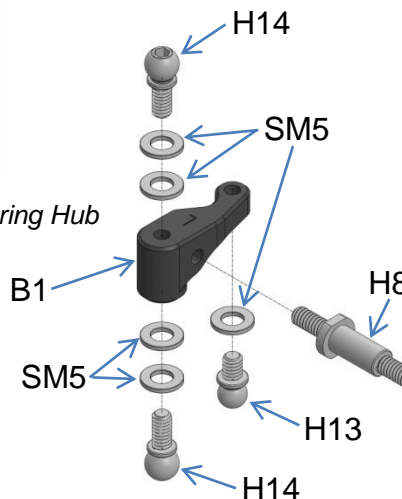
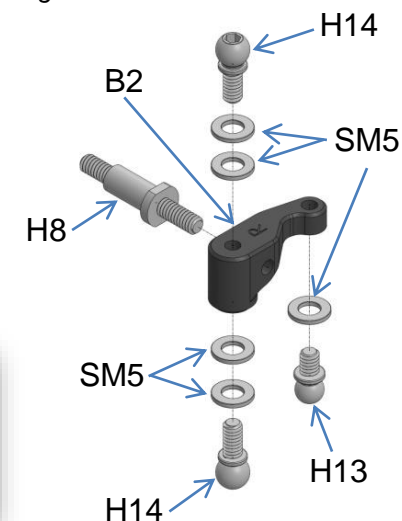
Options: Alloy Steering Hub

GT-OP-008-0
GT-OP-008-1
GT-OP-008-2
GT-OP-008-3



Options: Alloy Steering Hub

GT-OP-008-0
GT-OP-008-1
GT-OP-008-2
GT-OP-008-3



Tips: Screw the G19 to the end. The final dimension is around 13mm to 13.1mm.



★ M1.2x3 PB x2
Down Stop Screw

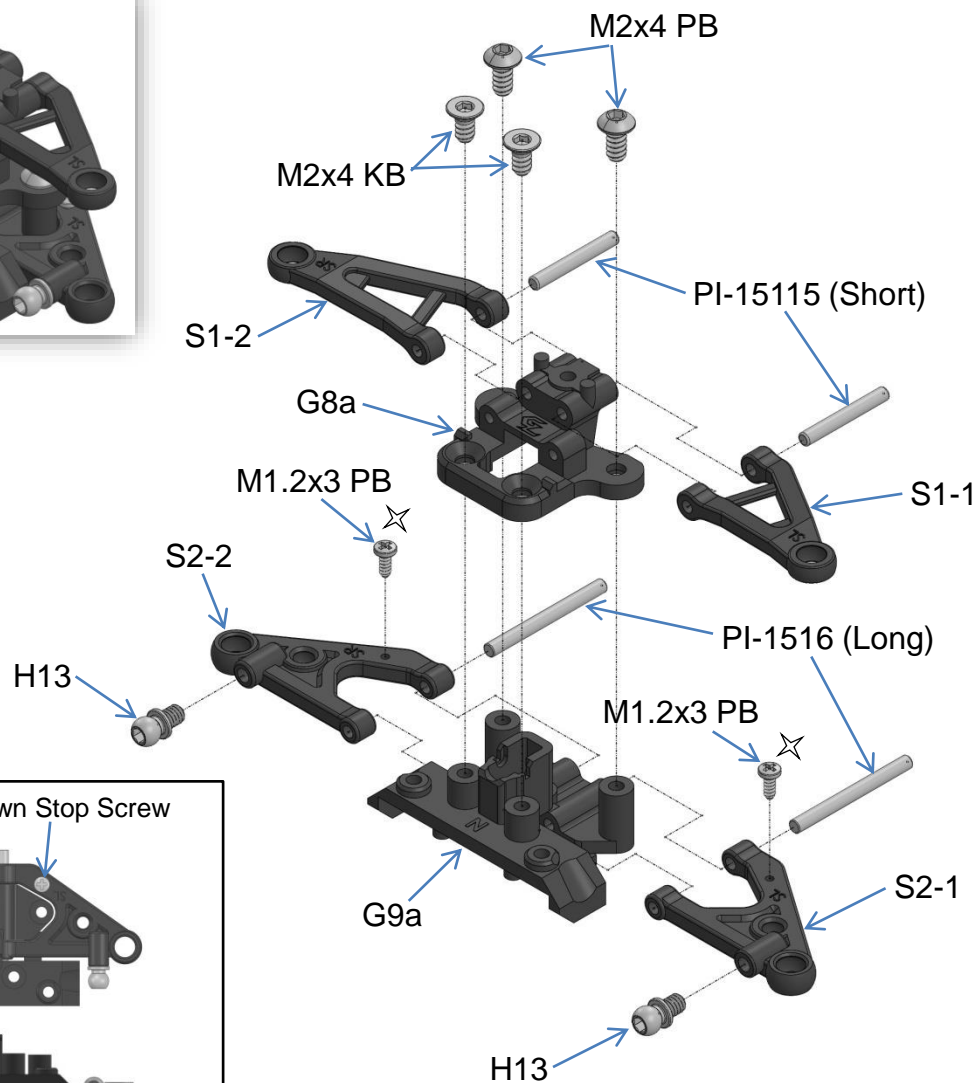
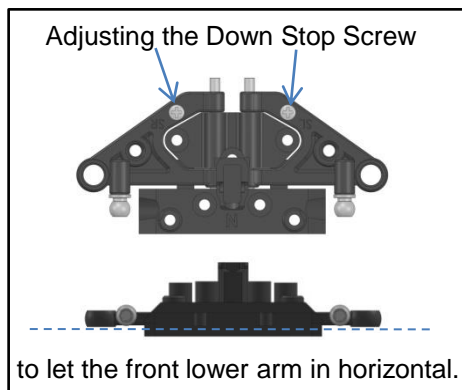
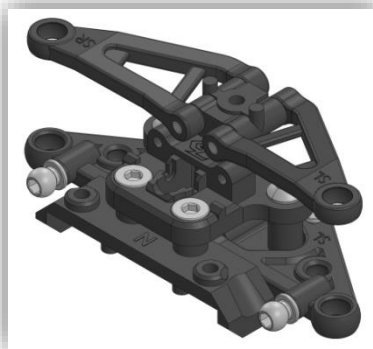
M2x4 PB x2

M2x4 KB x2

H13 x2

PI-1516 x2
(M1.5x16)

PI-15115 x2
(M1.5x11.5)





H15 x1



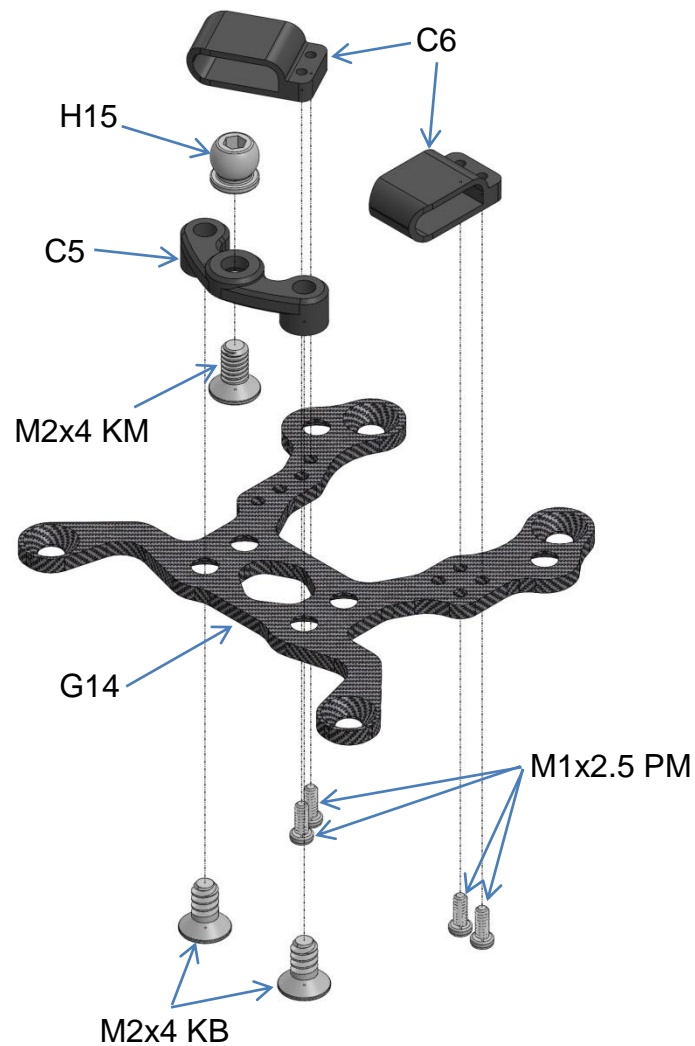
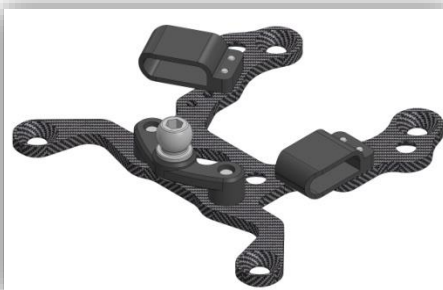
M2x4 KB x2



M2x4 KM x1



M1x2.5 PM x4

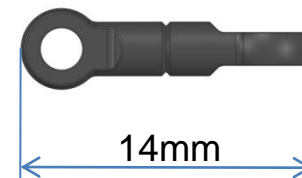
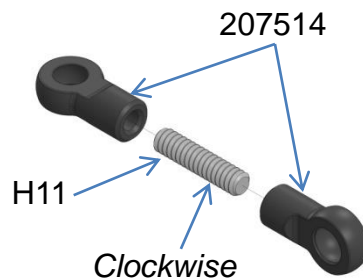




257014 x1



H11 x1
(Ø1.5x6mm
Threaded Rod)



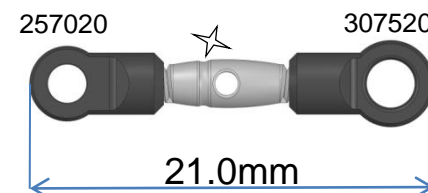
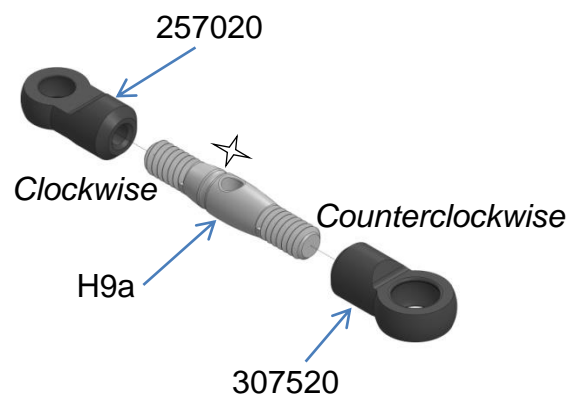
257020 x1



307520 x1



H9a x2





M2x4 KB x2



M2x4 x2
(Cup Head)



M1.5x3.5 PM x1



H12 x1
(BS-2502)



M2x3 PM x2



M2x4 PB x2



H15 x2
(BS-3520)

Options: GL-0820-TG
GL titanium gear servo



M2x4 KB

G13

GT-S-035

M2x4
(Cup Head)

A3

H12

M1.5x3.5 PM

M2x4
(Cup Head)

A1

Options: GT-OP-009
Alloy servo mount



M2x3 PM

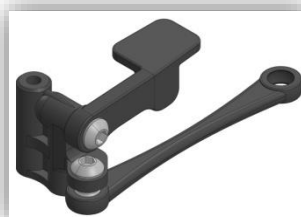
G2

G4

M2x4 PB

H15

B3



G1

M2x4 PB

M2x3 PM

G3

H15

B3





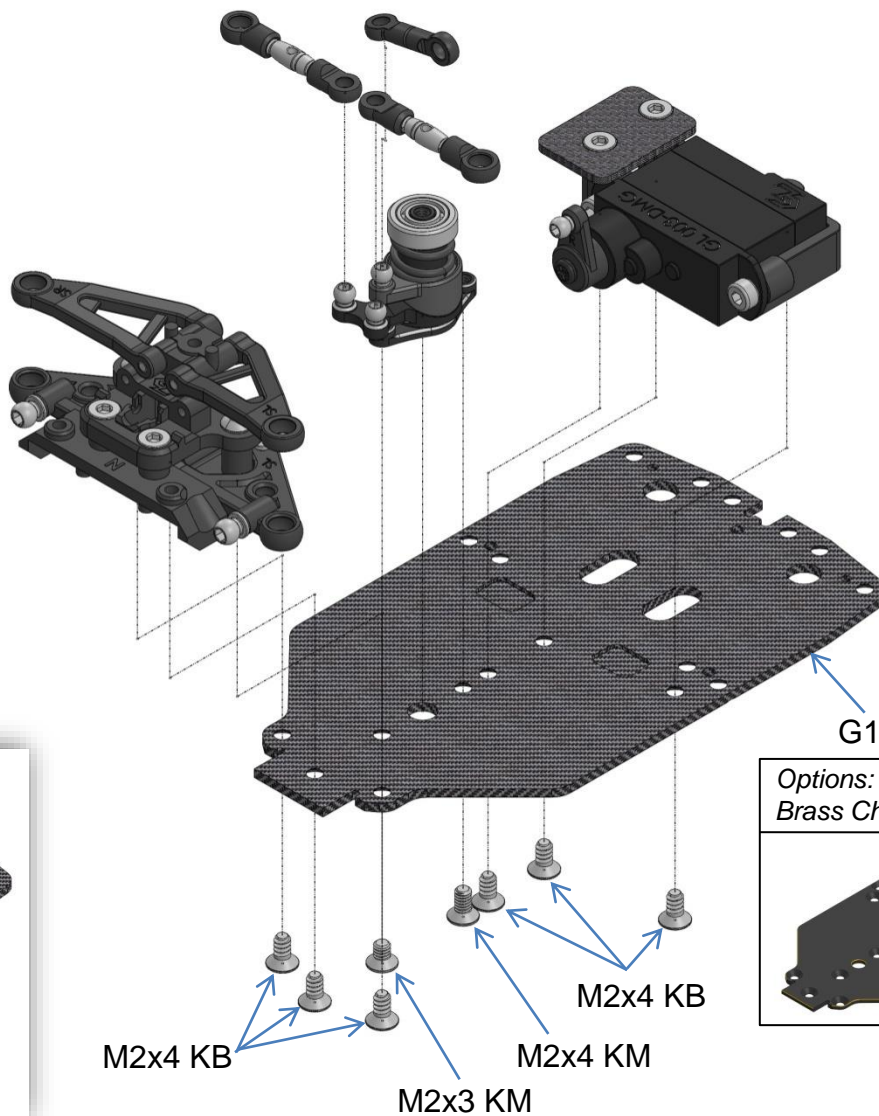
M2x4 KB x6



M2x3 KM x1

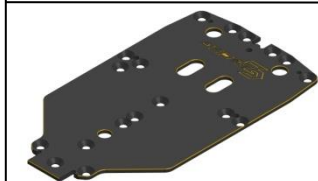


M2x4 KM x1



G16

Options: GT-OP-006
Brass Chassis

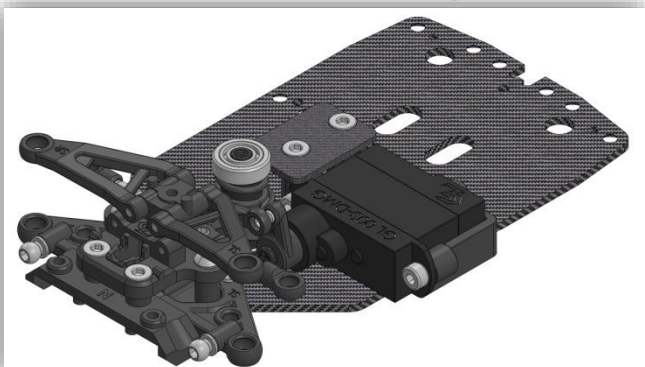


M2x4 KB

M2x4 KM

M2x3 KM

M2x4 KB



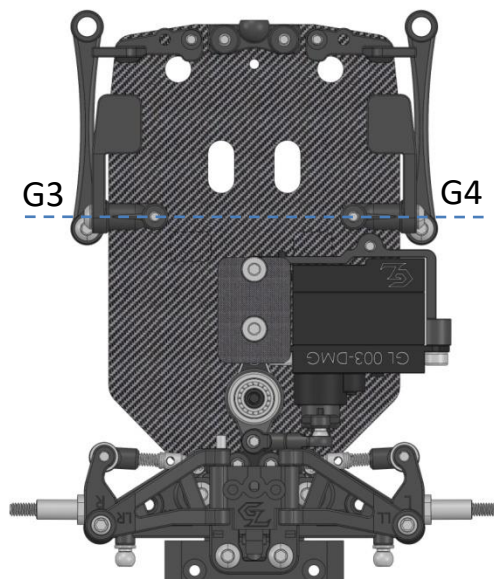
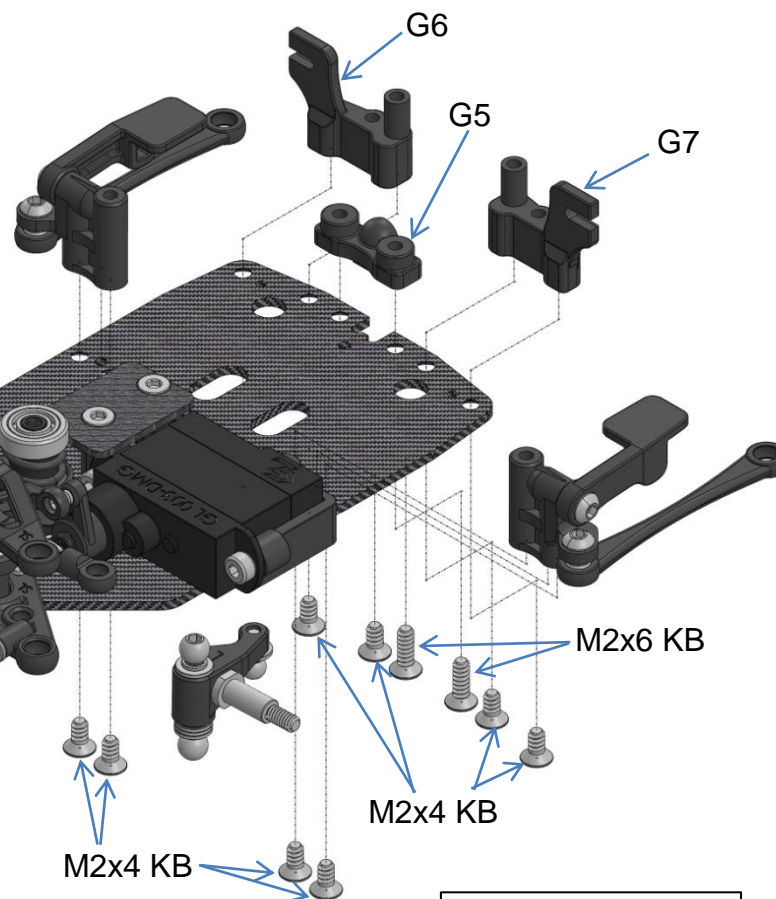
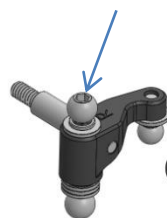


M2x4 KB x8



M2x6 KB x2

Tips: Checking all the ball joints be moved freely once snap-in to the arm then go next step.



Important notice:
Keeping the alignment on G3 and G4 once fix to the chassis board then to go next step.

Options: GT-OP-002-N
Front Anti Roll Bar set





M2x4 KB x3



M2x6 KB x2



M2x4 KM x1



SM4 x1
(3x4.5x0.1)

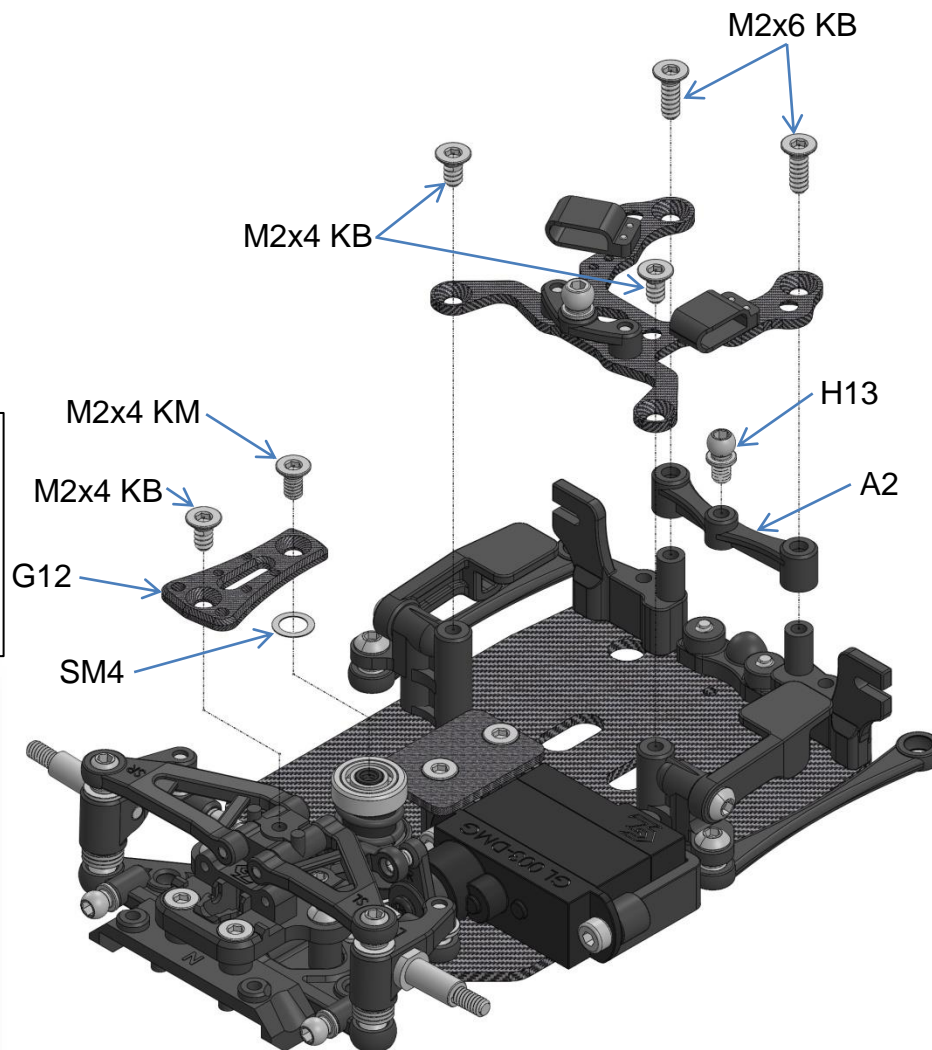
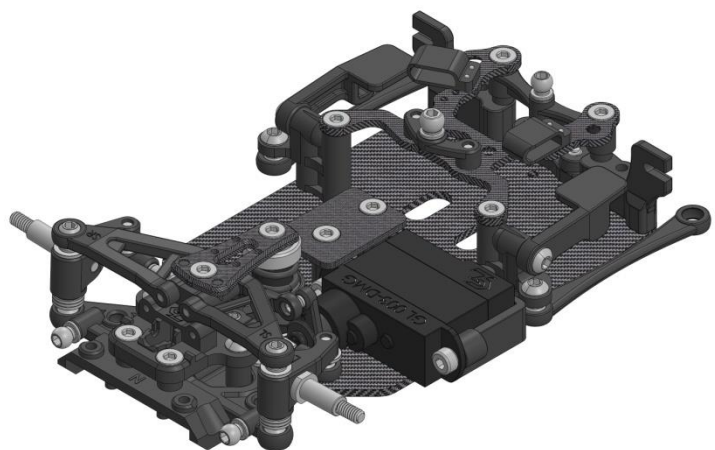


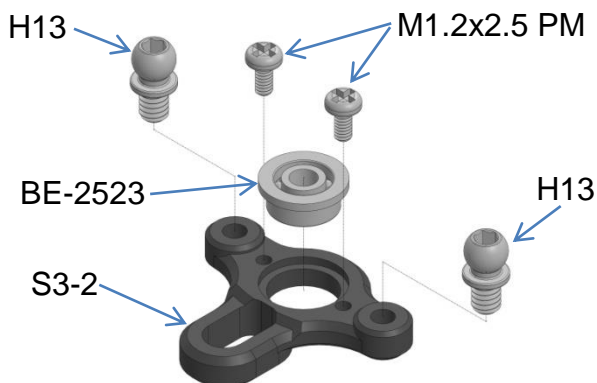
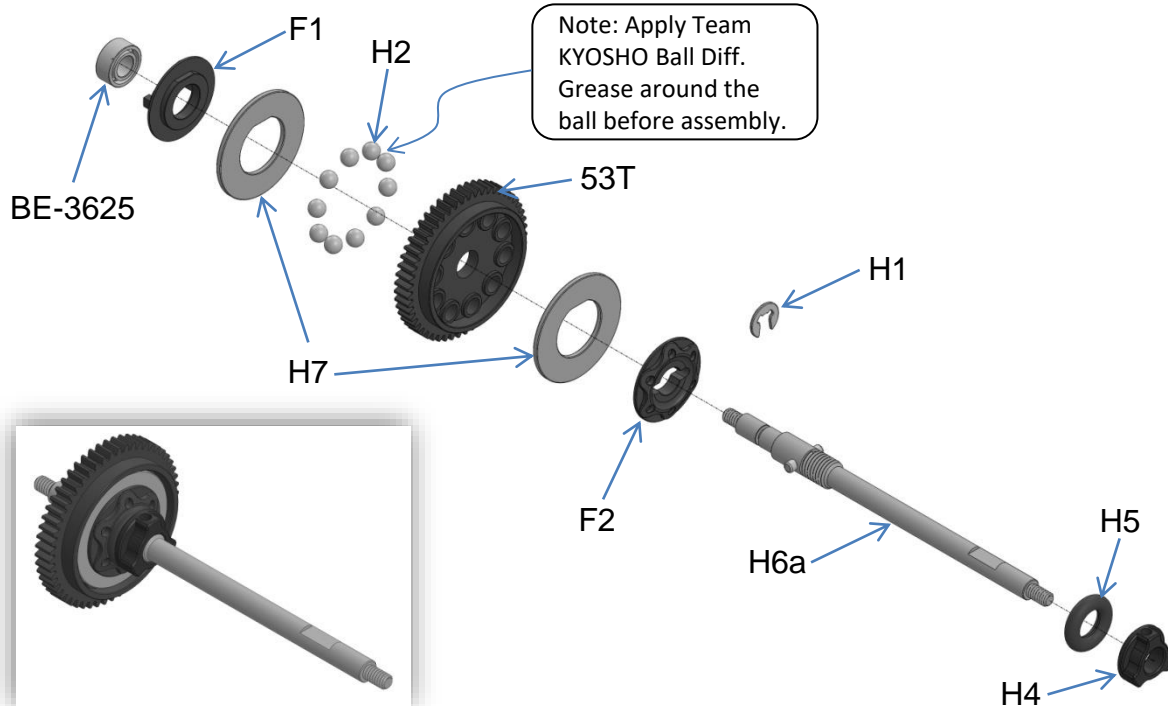
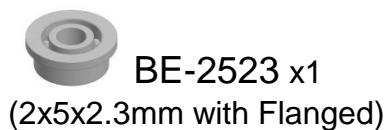
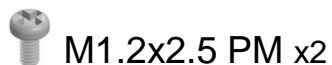
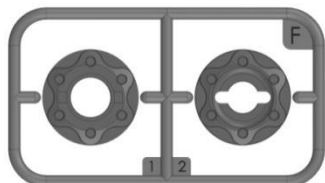
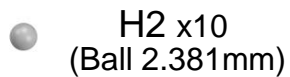
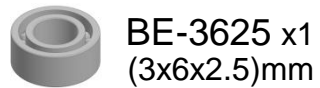
H13 x1

Options: GT-OP-013
Transponder Case Pro

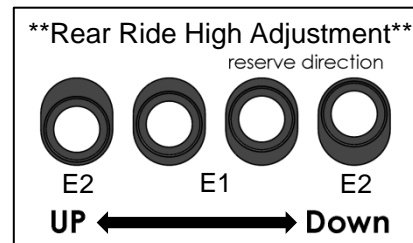
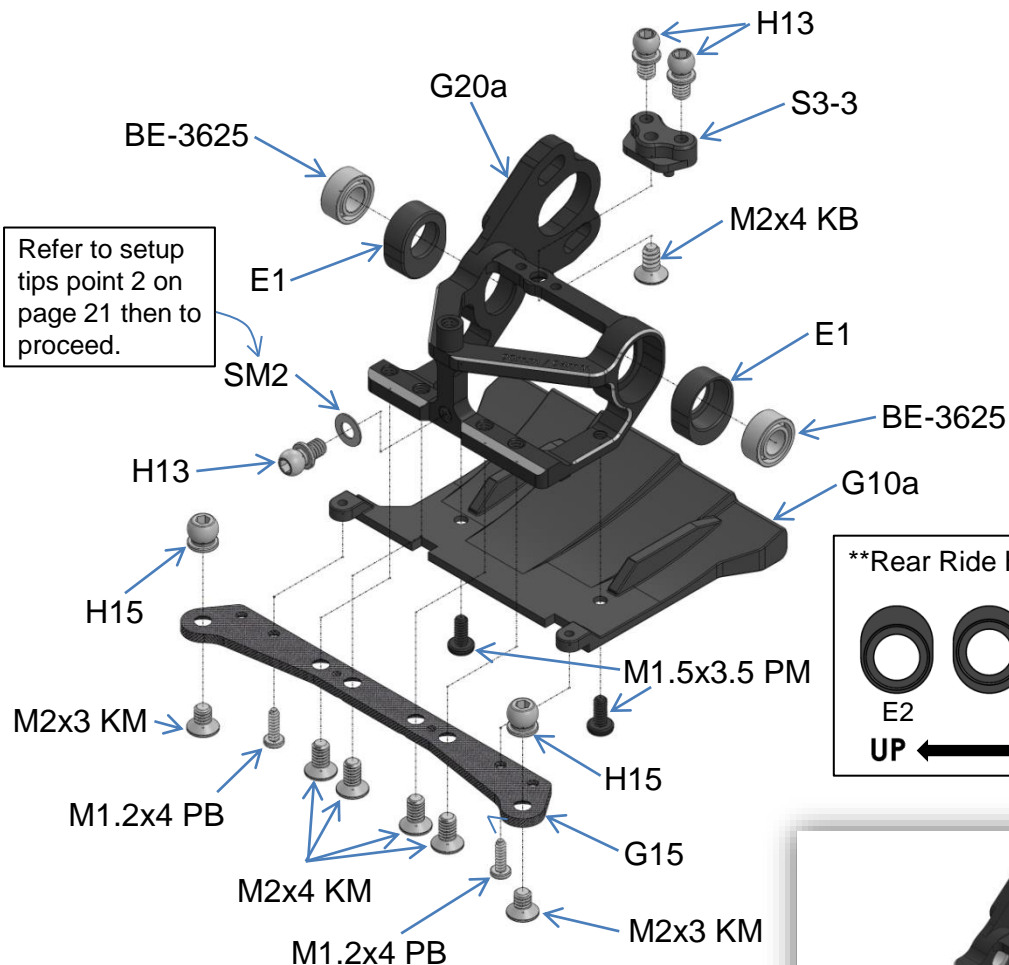


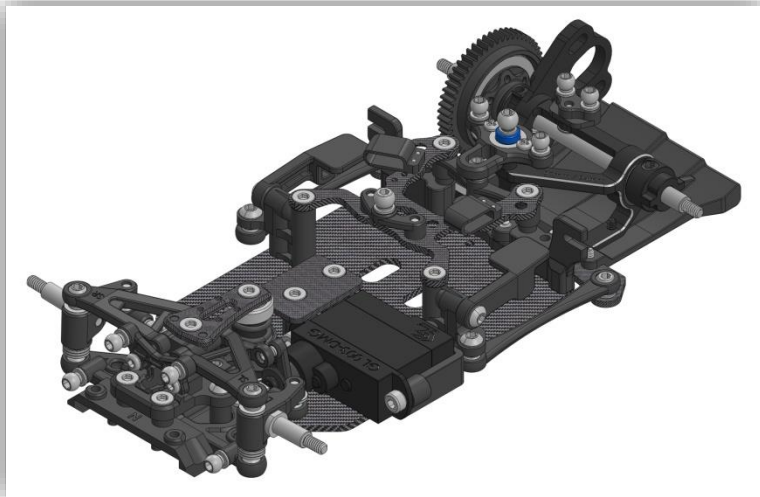
Only fit for
Mini Z Nano
Transponder
Unit GP0005M
sale separated.





-  M1.2x4 PB x2
-  M1.5x3.5 PM x2
-  M2x3 KM x2
-  M2x4 KM x4
-  M2x4 KB x1
-  H13 x3
(BS-3025)
-  H15 x2
(BS-3520)
-  BE-3625 x2
(3x6x2.5)mm
-  SM2 x1
(2x4x0.2)





H13 x2
(BS-3025)



H16 x1
(BS-3580)



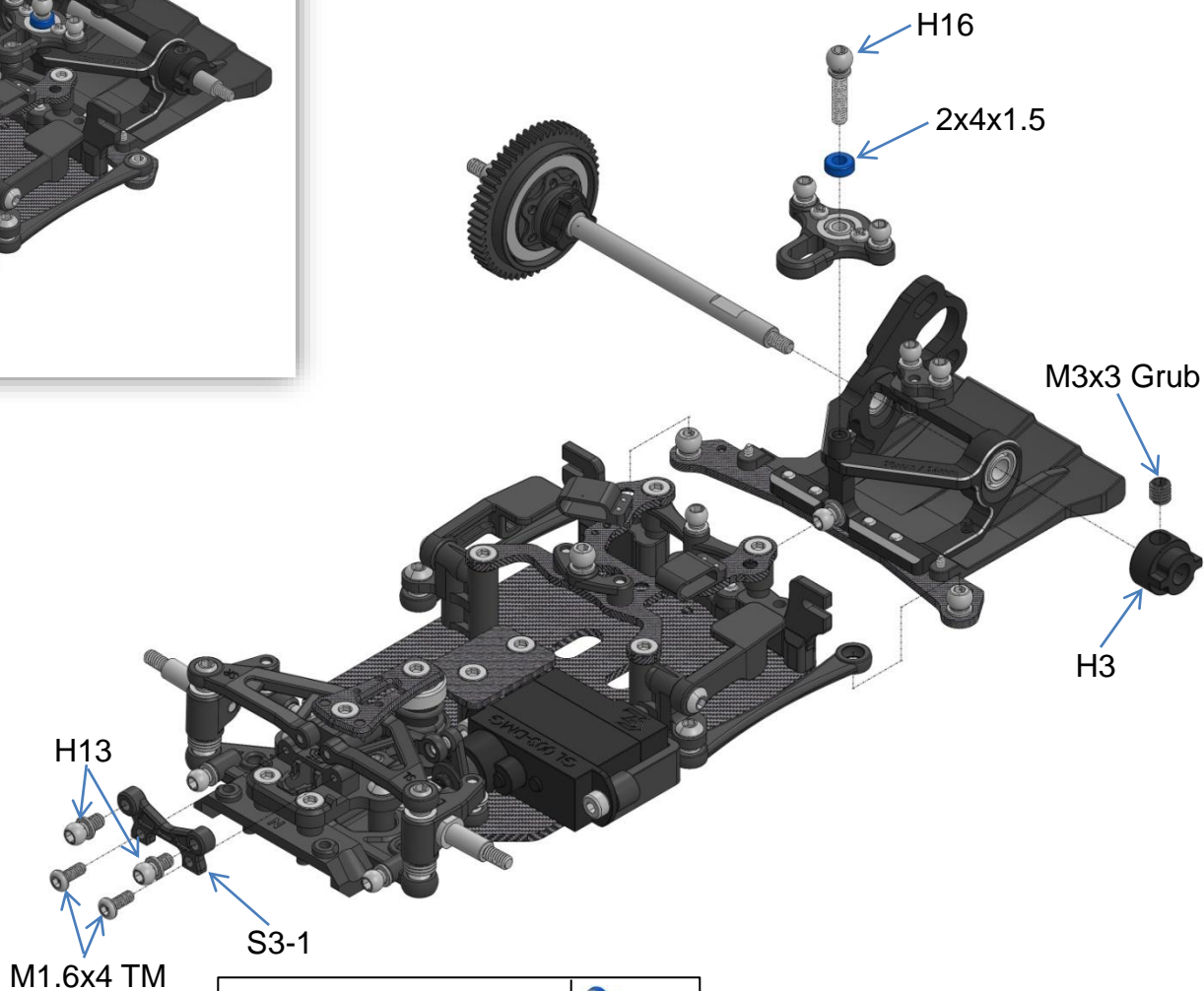
2x4x1.5 x1



M3x3 Grub x1

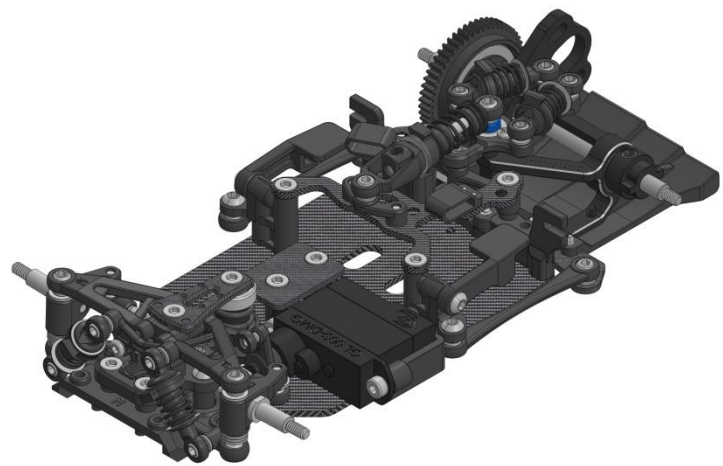


M1.6x4 TM x2



Options: GT-OP-007-N
T6 Alum. Front Shock Tower





Options: GT-OP003-C

Spring Set -CS



Hard ← → Soft

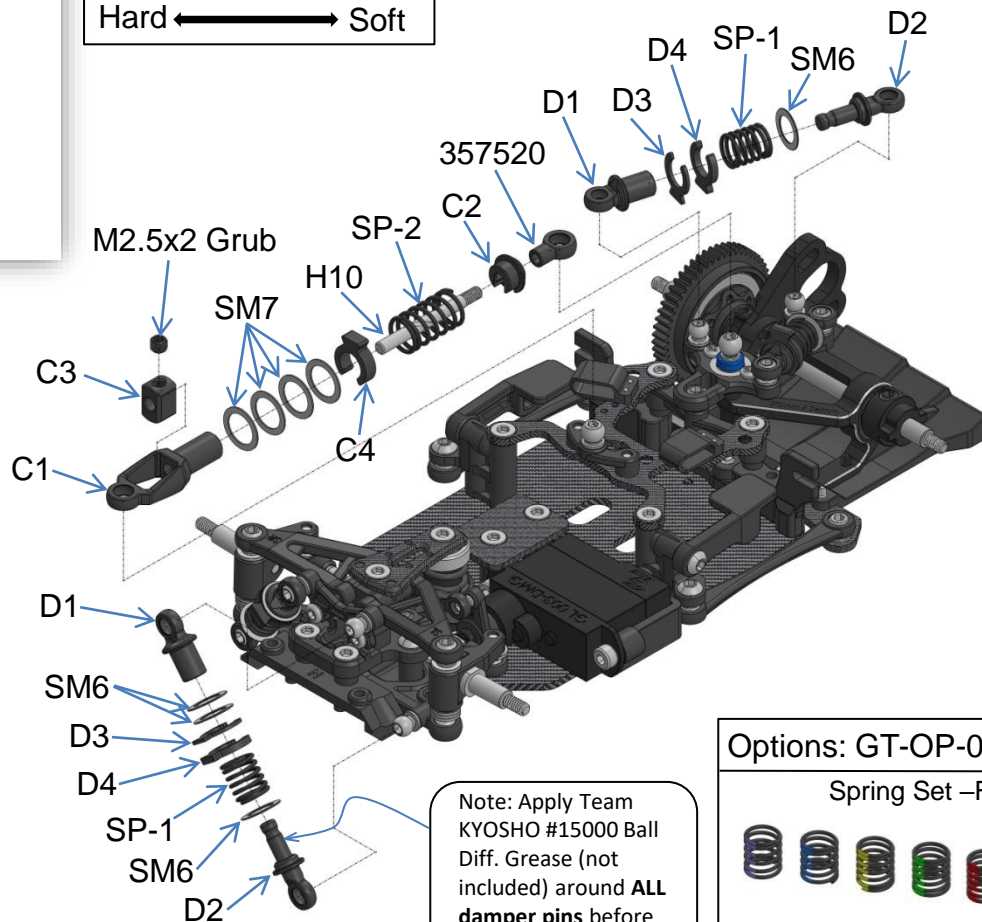
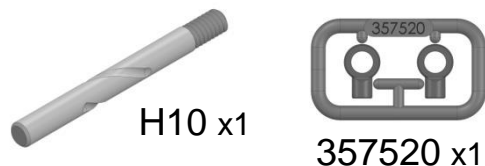
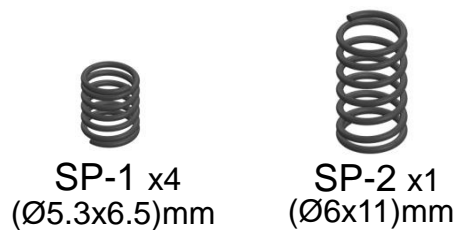
Options: GT-OP-003

Adjustable central shock



Options: GT-OP-004

Adjustable screw Shock



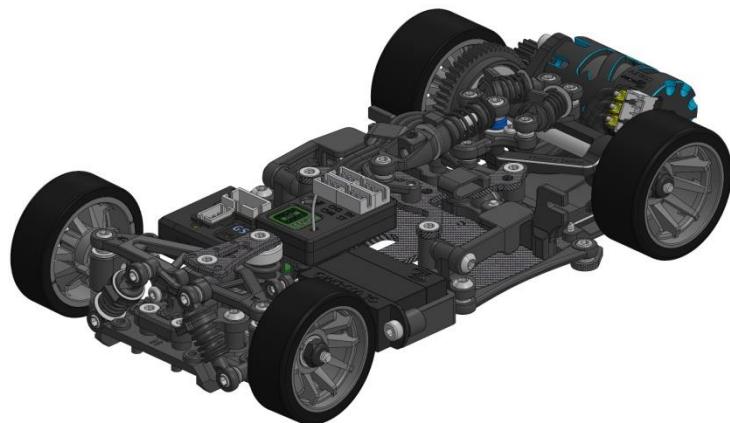
Note: Apply Team KYOSHO #15000 Ball Diff. Grease (not included) around **ALL** damper pins before assembly.

Options: GT-OP-001

Spring Set -F/R



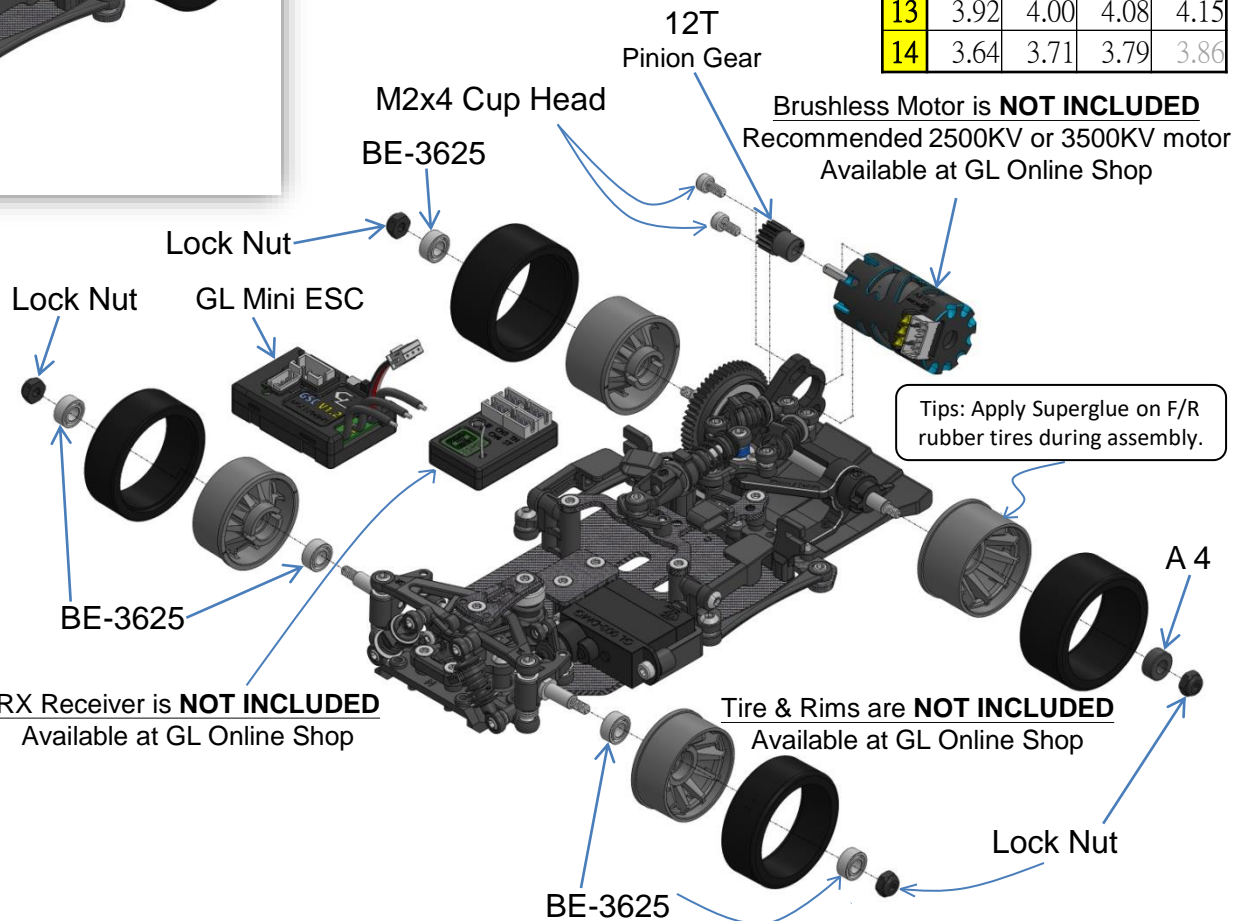
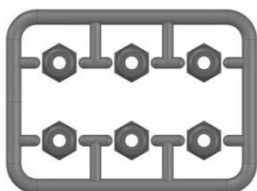
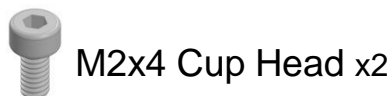
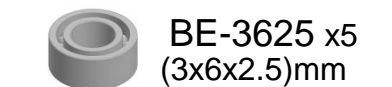
Hard ← → Soft



Options: GL-SD-ESC-010T
Brushless Sensored ESC

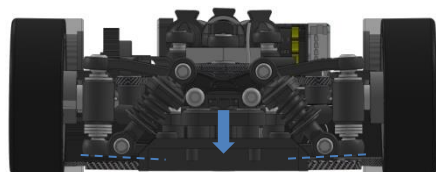


GLRG-GT Gear Ratios				
	51	52	53	54
9	5.67	5.78	5.89	6.00
10	5.67	5.20	5.30	5.40
11	4.64	4.73	4.82	4.91
12	4.25	4.33	4.42	4.50
13	3.92	4.00	4.08	4.15
14	3.64	3.71	3.79	3.86



Basic setup/assembly tips before 1st run on RCP Track

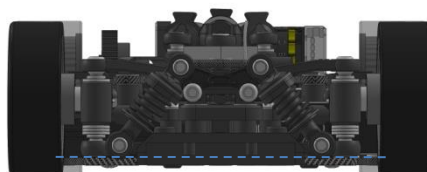
- 1, Checking all the ball joints and movement parts are moving freely. Especially motor and sensor wire are installed.
- 2, Check that the Rear-Subframe (P-17) can move very freely after assembly, check shim amount for best free movement. Please refer to the link "http://gl-racing.com/GLR/v1/guide/#rear_subframe" for more setup and assembly details.
- 3, Applying suitable grease on ball differential (P-16) and Shocks (P-19) which is as thinner as possible and just wrap around the pin is enough. Don't put too much for being maintain frequency.
- 4, Tire around the Rims (P-20) must be fixed with Superglue (Aron Alpha).
- 5, Set the front lower arms both left and right in horizontal. See below Pic 5.1
 - Use cross type screw driver to adjust the screw which is located in backward of the front lower arm. See page 9. **NO DOWN STOP IS REQUIRED IN FIRST SETUP.** Applying down stop may cause steering sensitive which depends on the traction of the RCP track.



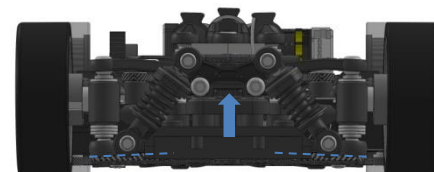
Pic 5.1



Not recommended
Screwing out the screw for fix.



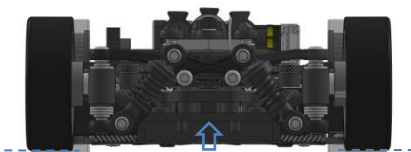
The lower arms stay horizontal means on matching the design purpose. Turns UP or Down may cause changing the camber gain and the ride high.



Not recommended
Screwing in the screw for fix.

- 6, Check the chassis left / right balance. Install wheels in same diameter and place on flat floor. Lift the front up to see left and right wheels apart from the floor, you will see 2 situations below.

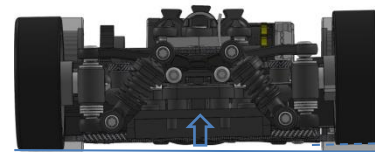
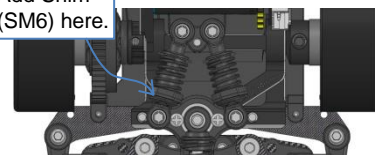
6.1 Both side of the wheels are apart the floor at the same time. In this case, congratulations!!! This is the main target that we need to get it. Otherwise, follow the instruction on 6.2.



Lift it up

6.2 One of the wheel apart the floor first. For example, if the **left** wheel apart first, adjust the **right** side damper (above the motor) in adding the shim (SM6) until both wheels apart the floor like 6.1. If the right wheel rise up first, do the same on other side.

Add Shim (SM6) here.



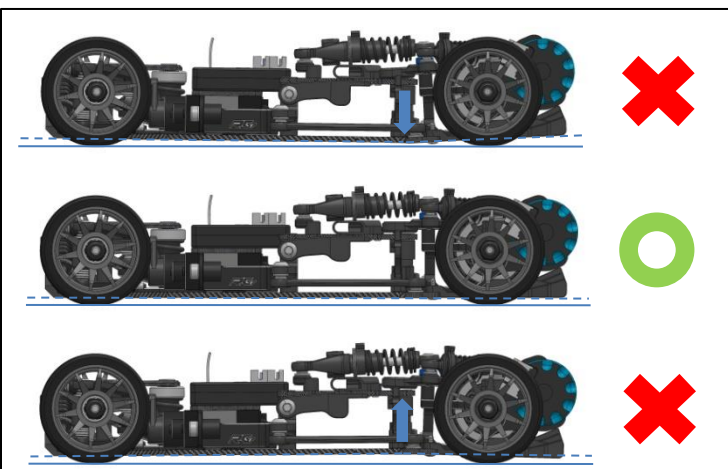
Lift it up

Basic setup/assembly tips before 1st run on RCP Track

Tips: If the car is new or just re-built, suggest to do point 6 first then to plug sensor and soldering motor wire. It will effect the result if the length of all wires are not suitable. It means that if you did nothing wrong, you will have the same result after all wire installed.

- 7, Keeping the spring preload on **SIDE DAMPER** even if you change the options **GT-OP- 004 Adjust Screw Shock**. The spring should be keep in touch of both end during extend and depress in valid of travelling. This issue may help the chassis running stable. Another if change the tension of the side damper, go back to check the point 6 to ensure the chassis L/R balance.
- 8, Check the chassis Front and Rear are staying straight. Detach the C3 first (page 19). See pic below 8.1.

Pic 8.1



Waist Down

⇐ If the situation is on the left, add the SM7 (see page 19) until the chassis Front and Rear going straight.

If the situation is on the left, congratulations!!! Put back

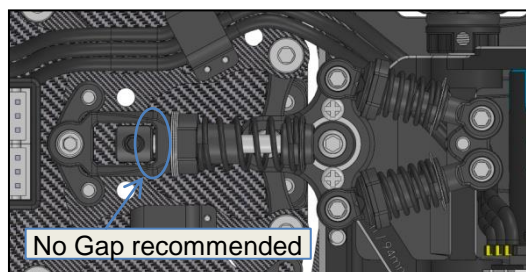
⇐ the C3 (page 19) and check again the waist stay straight then to race.

Waist up

⇐ If the situation is on the left, remove the SM7 (see page 19) until the chassis Front and Rear down to straight.

- 9, Adjust with NO GAP (no down stop) on Central Shock. See pic 9.1.

Pic 9.1

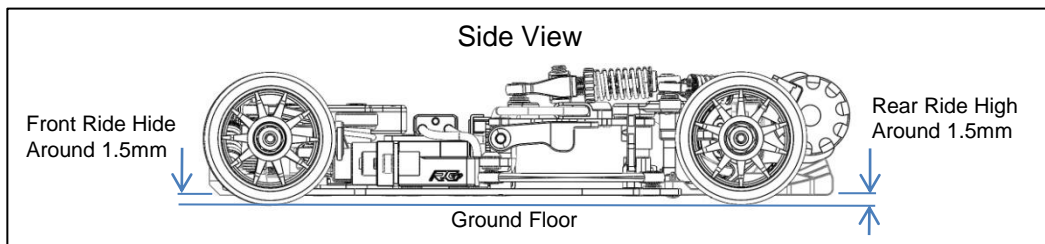


Adjust the C3 (page 19) with NO gap but need to keep the point 8 Front and Rear chassis in straight. This Gap = Down Stop for having unstable in all the time running on the high traction RCP track.

Basic setup/assembly tips before 1st run on RCP Track

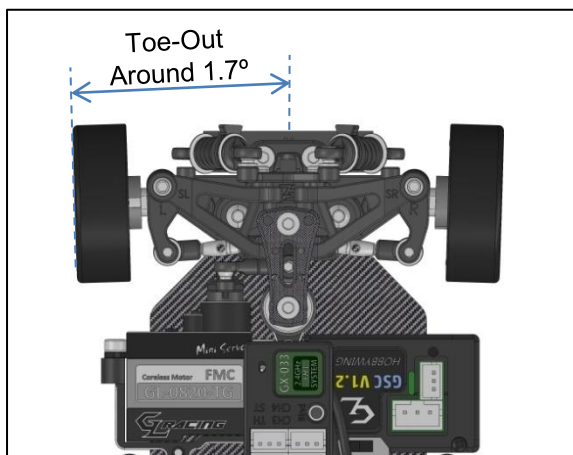
10, Adjusting ride high around **1.5mm** on front (P-8) and rear (P-17) before run. See pic 10.1.

Pic 10.1



11, Adjust the length of Steering Rods (P-11) in between 21.0mm to 21.3mm. See Pic 11.1. Shorter may cause toe-out (recommended) for stable in cornering and running straight. Adjust it longer may cause less toe-out to toe-in for steering sensitive.

Pic 11.1



Steering Rod length

21.0mm is around toe-out 1.7° per side

21.3mm is around toe-out 0.2° per side

12, For beginner: Motor 2500KV, Front Tire GT0001-S19/GT0001-S20, Rear Tire MZR-V1R05/MZR-V1R10.

13, For stock: Motor 3500KV, Front Tire GT0001-S18.5/GT0001-S19. Rear Tire MZR-V1R05/MZR-V1R10.

14, For modified: Motor 4500KV or above, Front Tire GT0001-S18.5/GT0001-S19, Rear Tire MZR-V1R05/MZR-V1R10.

15, After the body shell installed (Auto Scale or Lexan) to the chassis, check all the moving parts and steering turned no jam before run.

Recommended Basic Options Parts

GLR-GT T6 Alum. Front Shock Tower - Narrow

GT-OP007-N



GT-OP-002-N
GLR-GT Anti-Roll Bar - Narrow

GLR-GT Transponder Case PRO

GT-OP-013



Brushless sensed ESC

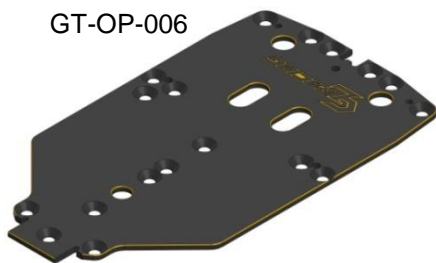
GL-SD-ESC-010T



GT-OP-003
GLR-GT Central Shock - L

GLR-GT Brass Chassis

GT-OP-006



GLR-GT Option Spring Set CL

GT-OP-003-CL



GLR-GT Adjustable Screw Shock

GT-OP-004



GLR-GT Option Spring Set F/R

GT-OP-001



GLR-GT T6 Alum. Steering Knuckles

GT-OP-008-0

GT-OP-008-2



GT-OP-008-1

GT-OP-008-3

GLR-GT T6 Alum. Servo Mount

GT-OP-009



GL-0820-TG
GL titanium gear servo

GLR-GT Adjustable Screw Shock

GT-OP-004



GL Connector
GL-CR-20

