Assembly Guide

www.gl-racing.com

Ver00

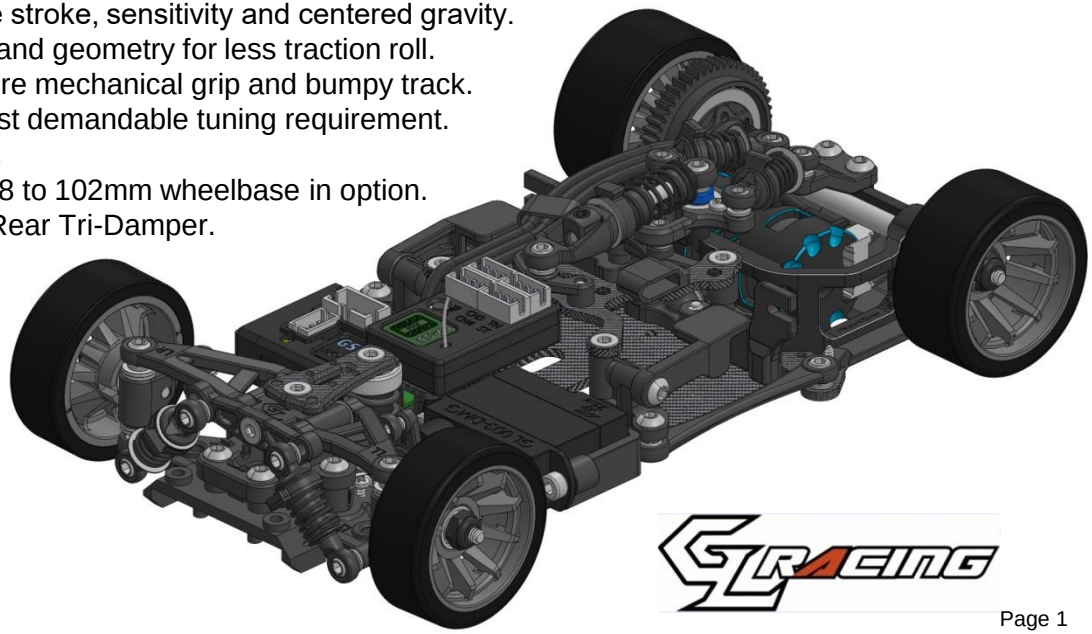
A new benchmark of Low Center Gravity on 1/27 Mini RC – GLR-GT

GL Racing and Development Team conducts a wide research and consulation 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, maintainence 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.

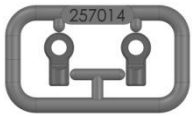


GL Racing products are designed and developed in Hong Kong. Our high-end and performance product is recommended for player with age of 14 or over.

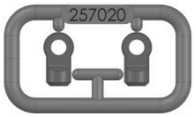
Thanks for choosing GL Racing.

Bag A (1-5)

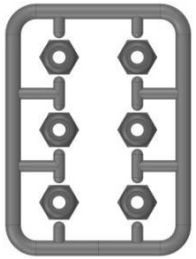
A-1



257014 **x1**

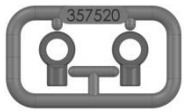


257020 **x1**



Lock Nut **x1**

307520 **x1**



357520 **x1**

A-2

G1 **x1**

G2 **x1**

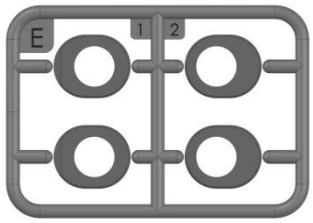
G6 **x1**

G7 **x1**

G3 **x1**

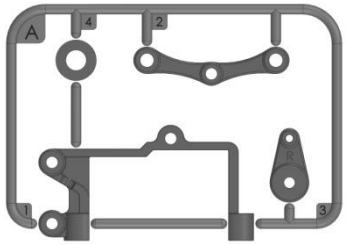
G4 **x1**

G5 **x1**



E Pack **x1**

A-3



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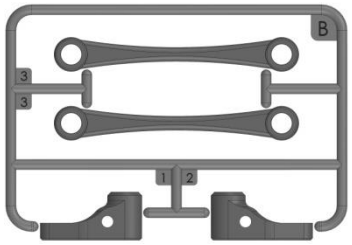
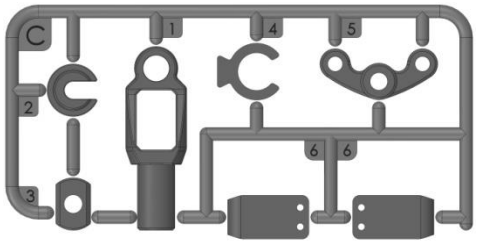
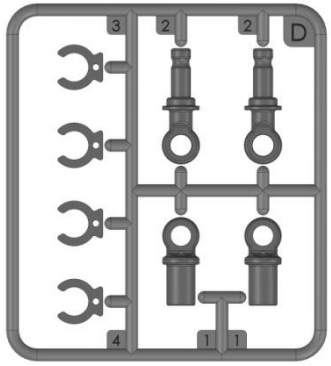


B Pack **x1**



C Pack **x1**

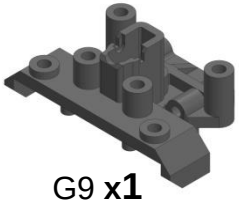


D Pack **x2**

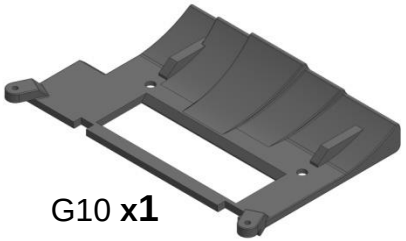
Bag A (1-5)

A-4

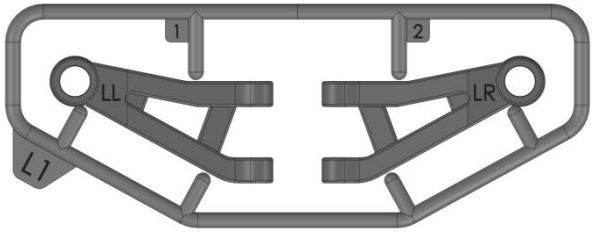
G8 **x1**



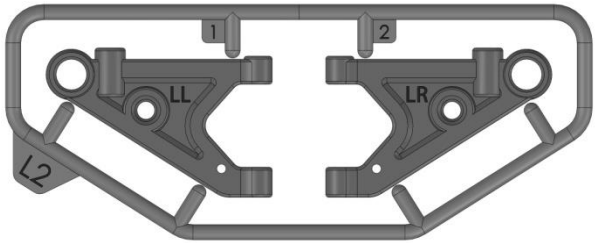
G9 **x1**



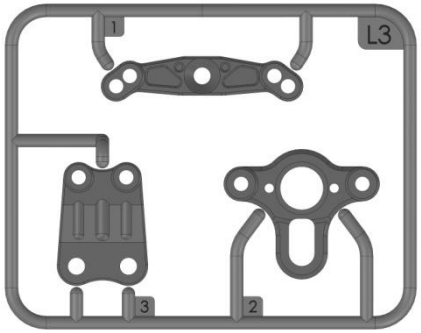
G10 **x1**



L1 Pack **x1**



L2 Pack **x1**



L3 Pack **x1**

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

9T x1

10T x1

11T x1

12T x1

13T x1

14T x1

Bag B

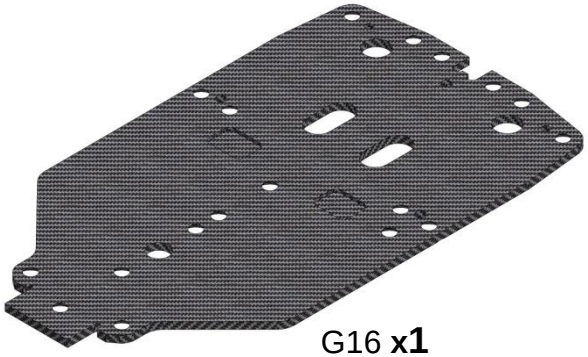
B-1

G12 **x1**

G14 **x1**

G13 **x1**

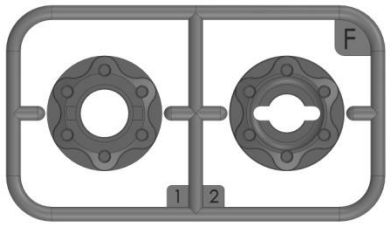
G15 **x1**



G16 **x1**

Bag C (1-8)

C-1



F Pack **x1**

53T **x1**

H1 **x1**

H2 **x10**
(Ball 2.381mm)

H3 **x1**

H4 **x1**

BE-3625 **x1**
(3x6x2.5)mm

H5 **x1**

M3x3 Grub **x1**

H6 **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**

G18 **x1**

G19 **x1**

C-3

H8 **x2**

H9 **x2**

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)

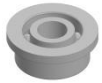
H16 **x1**
(BS-3580)

H14 **x4**
(BS-3540)

H15 **x5**
(BS-3520)

C-5

BE-3620 **x2**
(3x6x2)mm

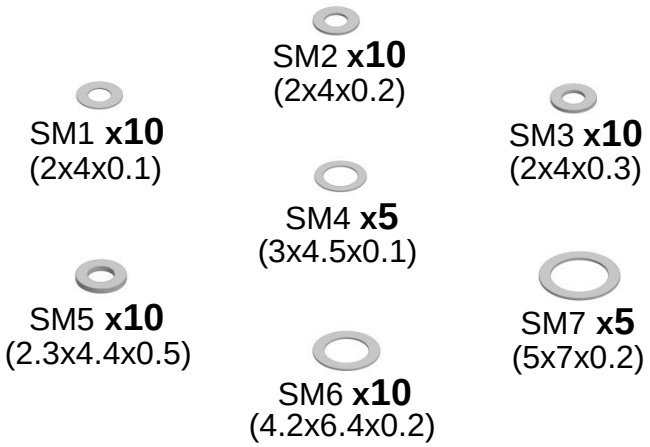


BE-2523 **x1**
(2x5x2.3mm with Flanged)

BE-3625 **x7**
(3x6x2.5)mm

Bag C (1-8)

C-6



SM1 **x10**
(2x4x0.1)

SM2 **x10**
(2x4x0.2)

SM3 **x10**
(2x4x0.3)

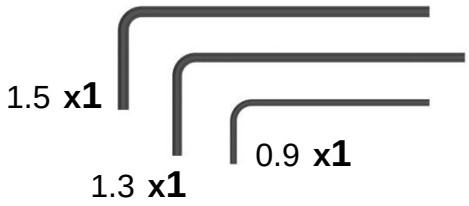
SM4 **x5**
(3x4.5x0.1)

SM5 **x10**
(2.3x4.4x0.5)

SM6 **x10**
(4.2x6.4x0.2)

SM7 **x5**
(5x7x0.2)

C-7

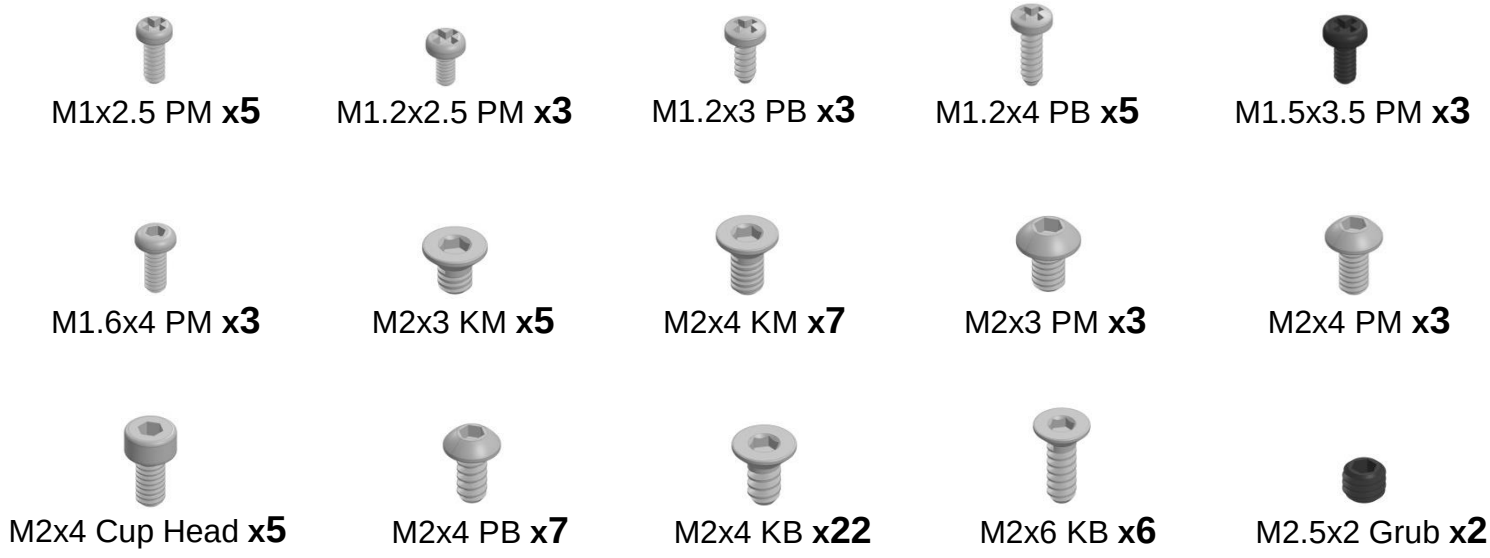


1.5 **x1**

1.3 **x1**

0.9 **x1**

C-8



M1x2.5 PM **x5**

M1.2x2.5 PM **x3**

M1.2x3 PB **x3**

M1.2x4 PB **x5**

M1.5x3.5 PM **x3**

M1.6x4 PM **x3**

M2x3 KM **x5**

M2x4 KM **x7**

M2x3 PM **x3**

M2x4 PM **x3**

M2x4 Cup Head **x5**

M2x4 PB **x7**

M2x4 KB **x22**

M2x6 KB **x6**

M2.5x2 Grub **x2**

Bag D

D-1

GT-S-035 **x1**
(GL003 DMG)

SP-1 **x4**
(Ø5.3x6.5)mm

SP-2 **x1**
(Ø6x11)mm

GT-S-036 **x1**

G20 **x1**

H12 x3

H14 x4

H13 x2

H8 x2

SM4 x1
(3x4.5x0.1)

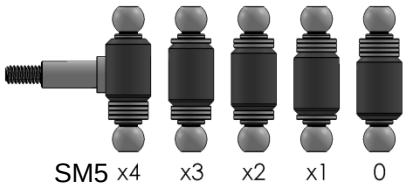
SM5 x10

BE-3620 x2

SP-3 x1
(Black)

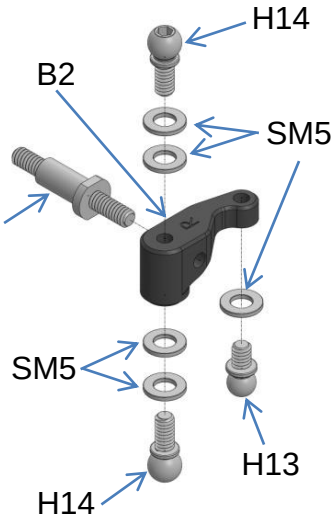
Front Ride High Adjustment

Down ⟵ ⟶ UP

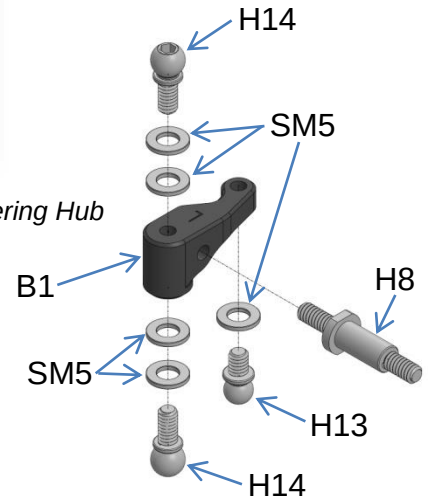


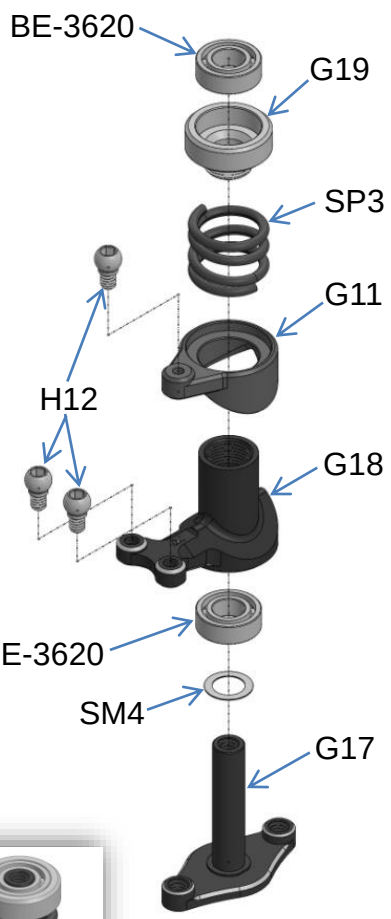
Switching the specer SM5 to top for the asjustment

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





M1.2x3 PB x2
Down Stop Screw

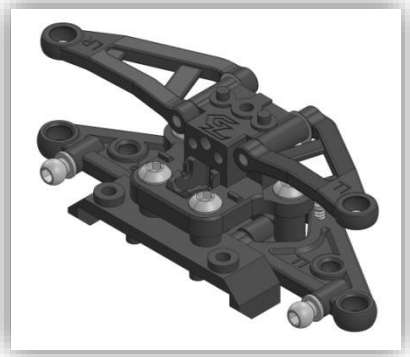
M2x4 PB x4

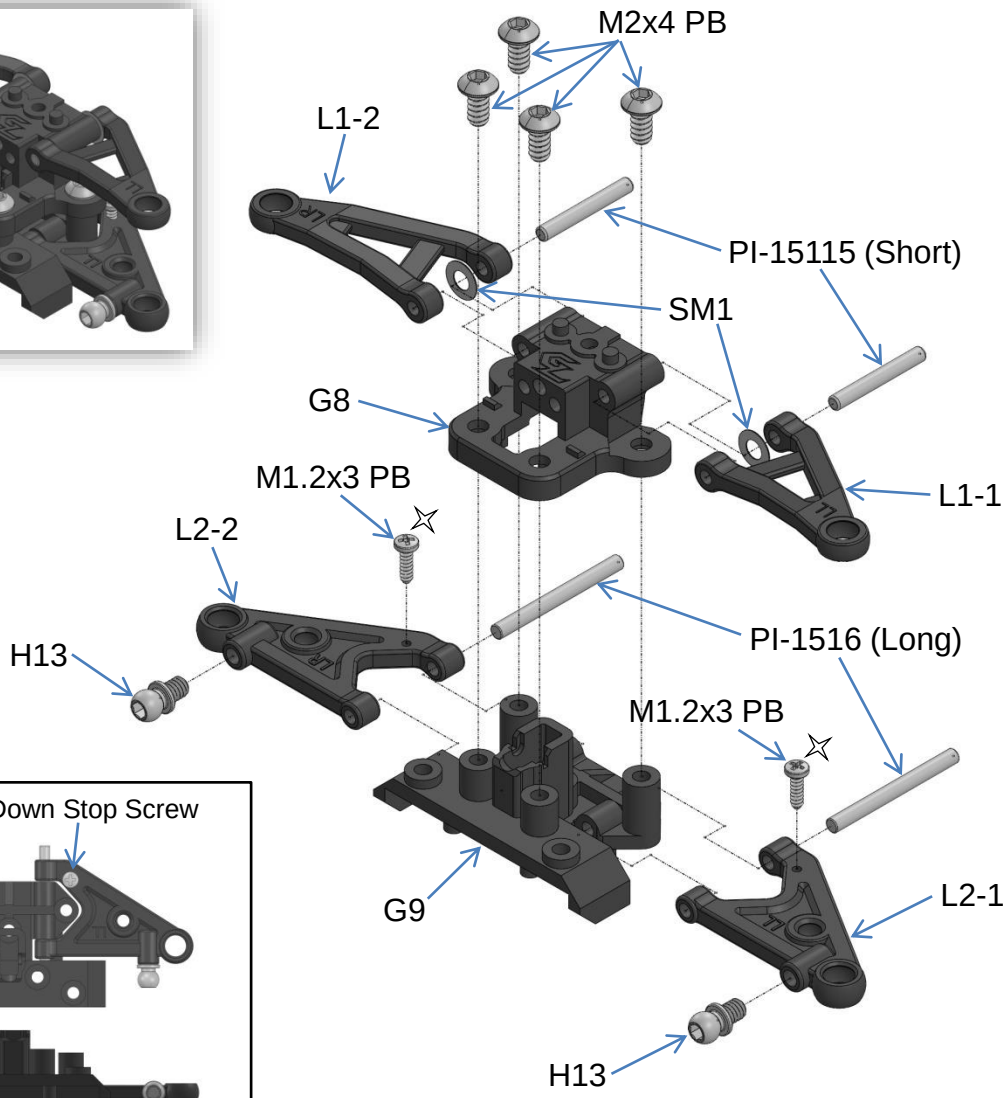
H13 x2

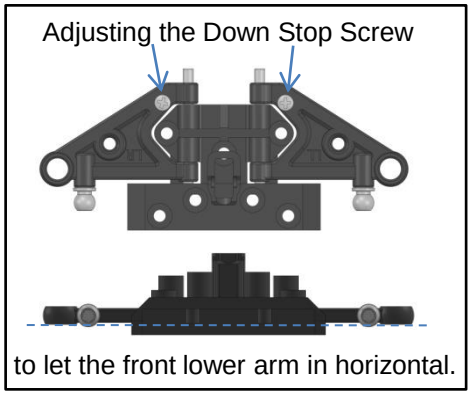
PI-1516 x2
(M1.5x16)

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

SM1 x2
(2x4x0.1)





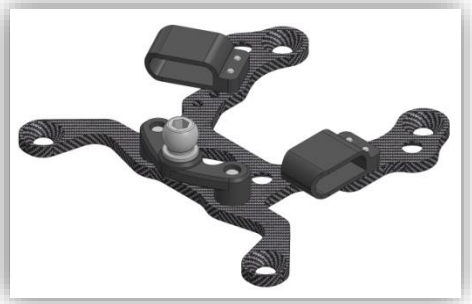


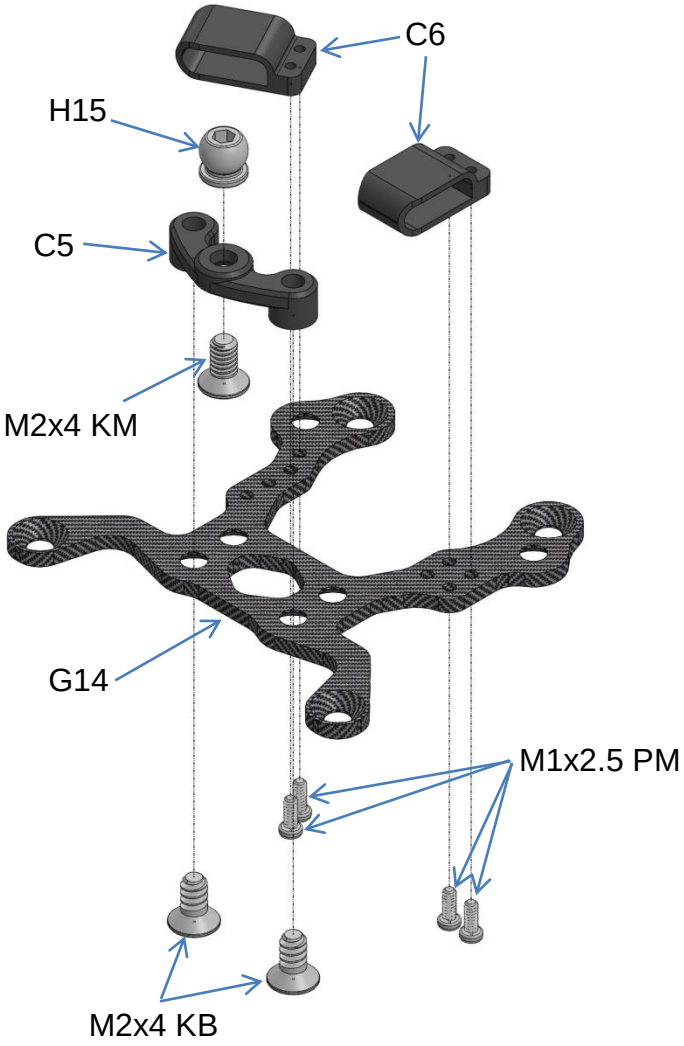
H15 x1

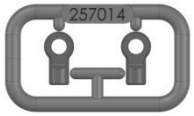
M2x4 KB x2

M2x4 KM x1

M1x2.5 PM x4

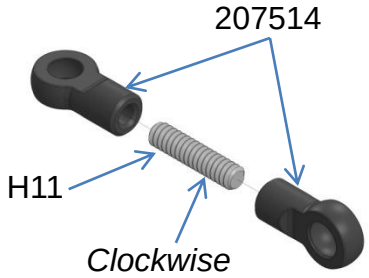


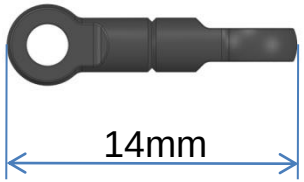


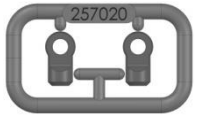


257014 x1

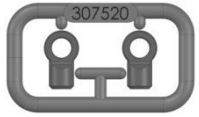
H11 x1
(Ø1.5x6mm
Threaded Rod)





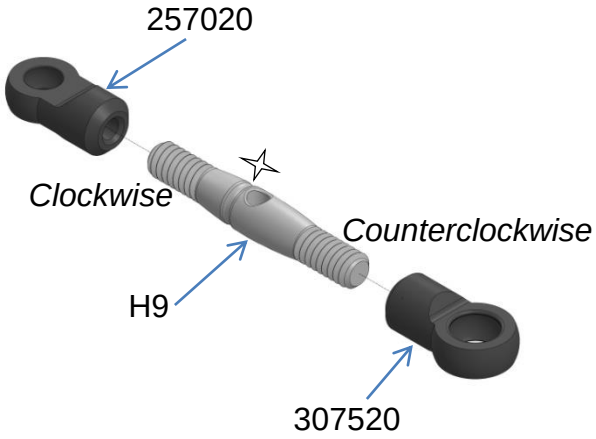


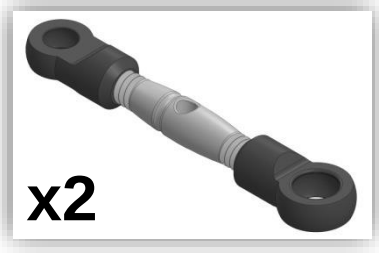
257020 x1

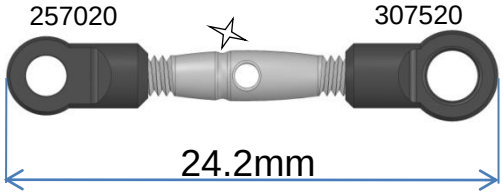


307520 x1

H9 x2







M2x4 KB x2

M2x4 x2
(Cup Head)

M1.5x3.5 PM x1

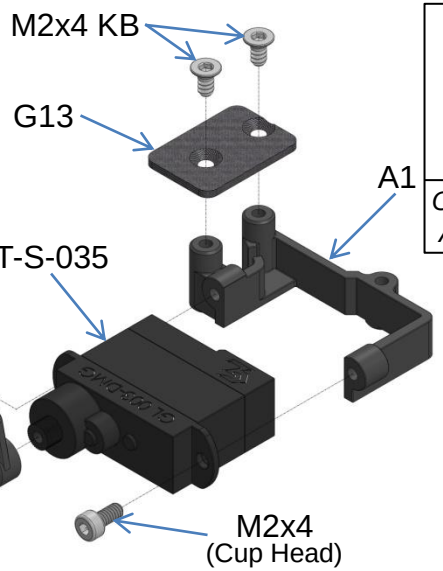
H12 x1
(BS-2502)

M2x3 PM x2

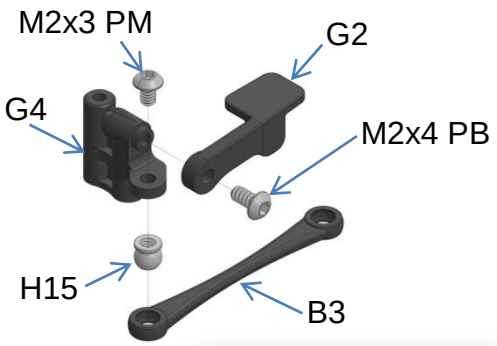
M2x4 PB x2

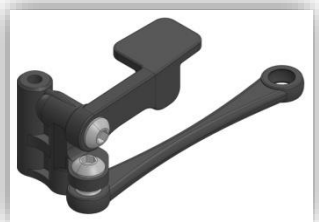
H15 x2
(BS-3520)

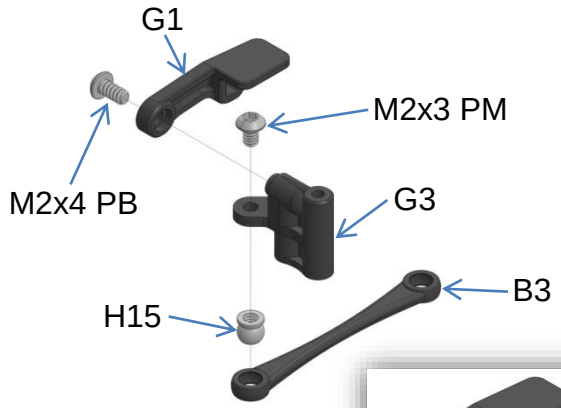
Options: GL-0820-TG
GL titanium gear servo



Options: GT-OP-009
Alloy servo mount



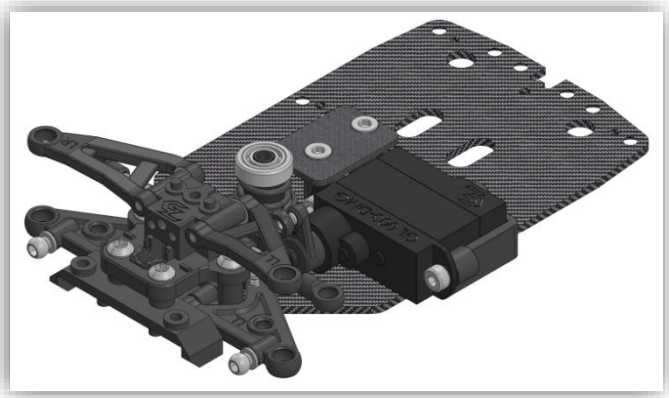


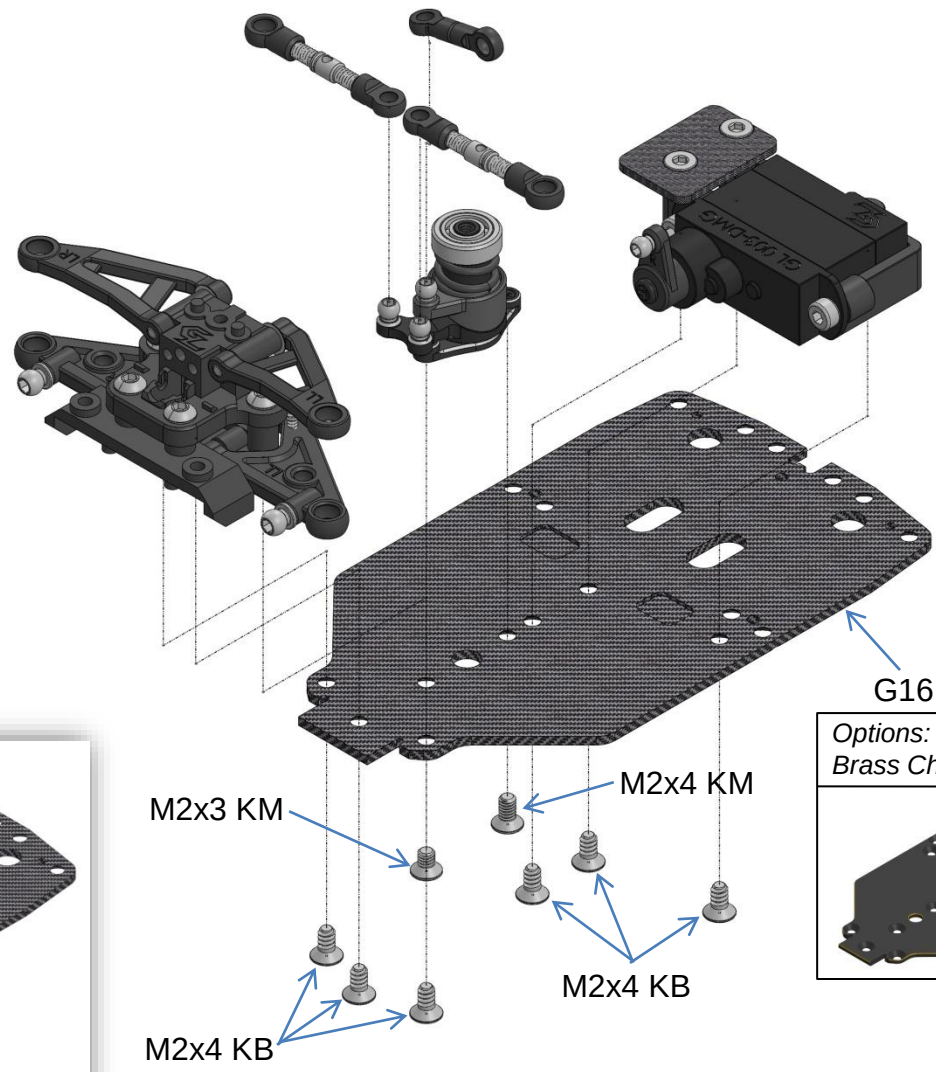


M2x4 KB x6

M2x3 KM x1

M2x4 KM x1



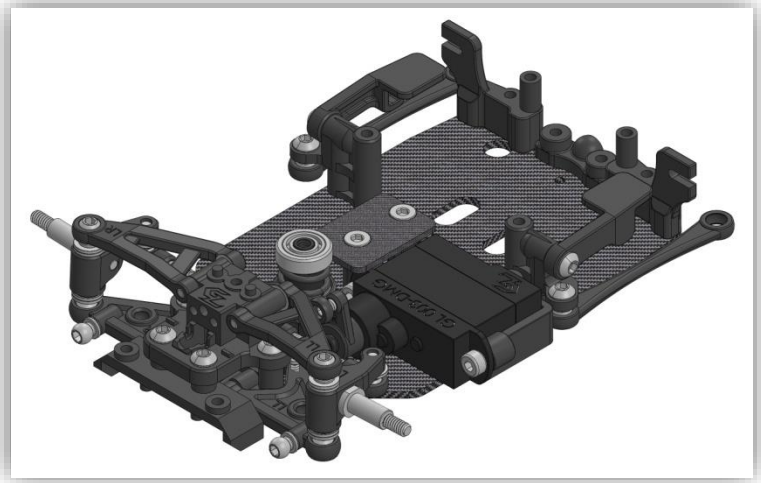


Options: GT-OP-006
Brass Chassis

M2x4 KB x8

M2x6 KB x2

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



M2x4 KB x3

M2x6 KB x2

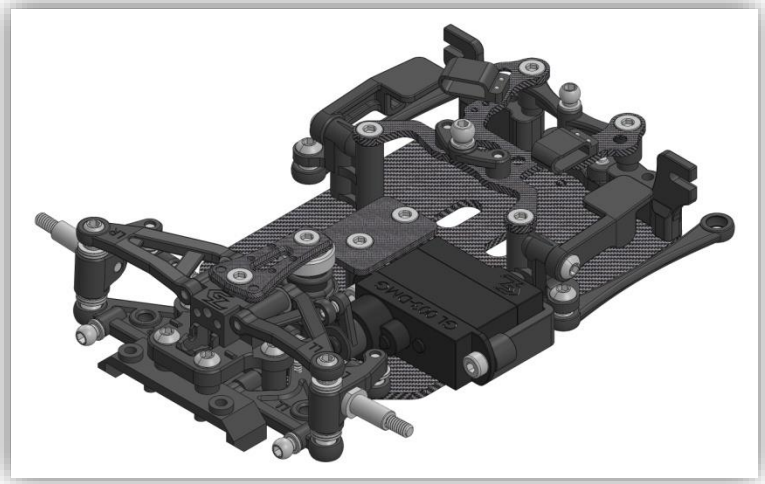
M2x4 KM x1

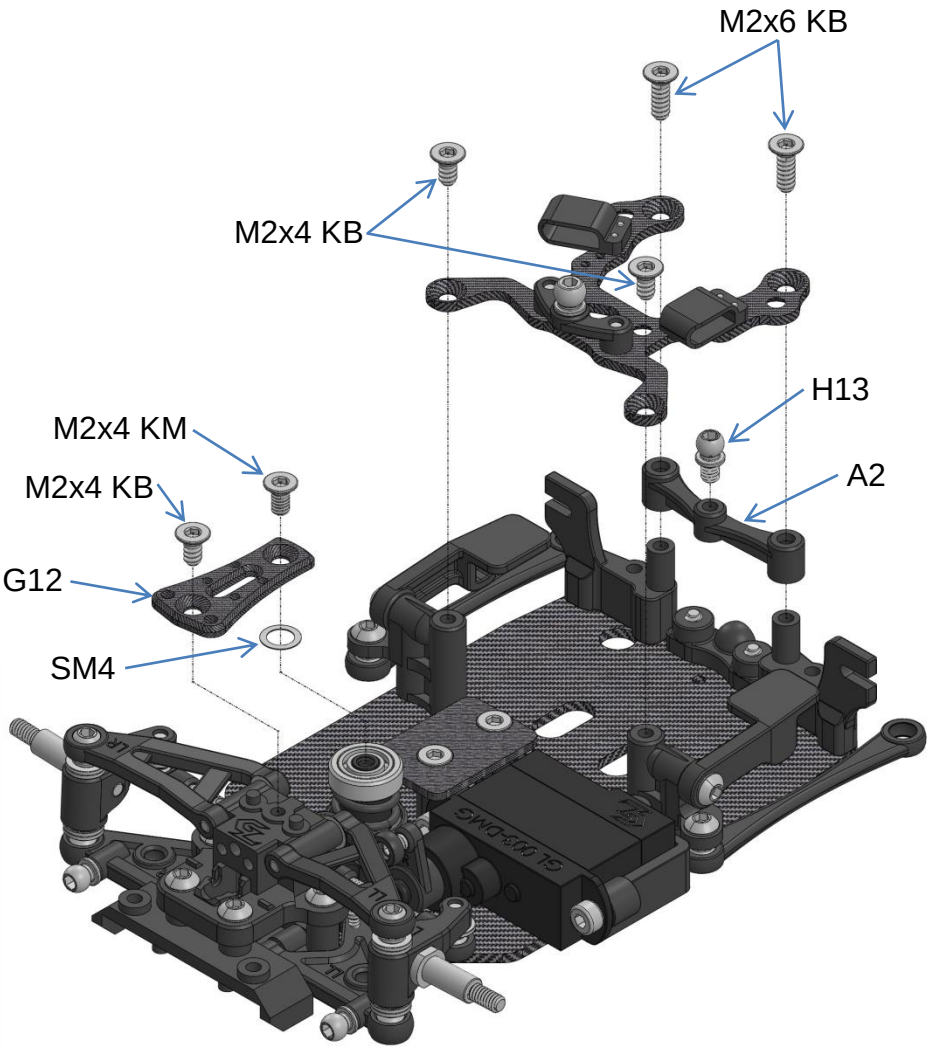
SM4 x1
(3x4.5x0.1)

H13 x1

Options: GT-OP-013
Transponder Case Pro

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

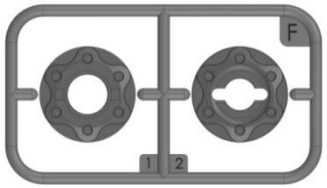




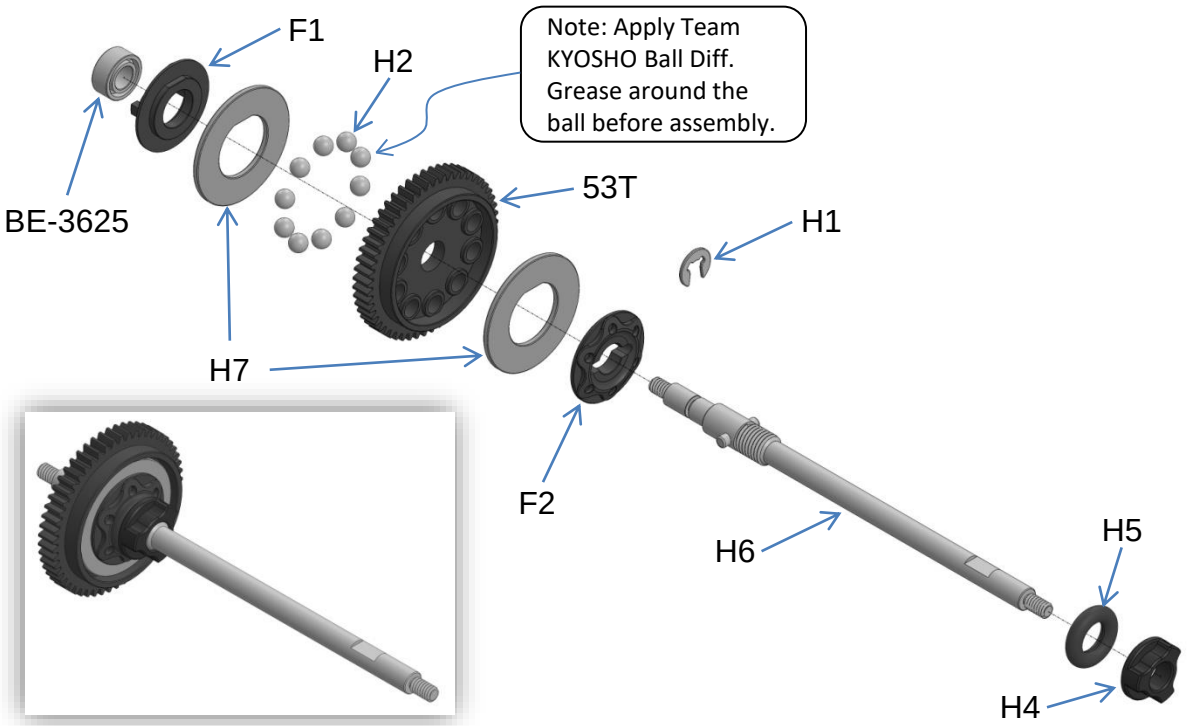
BE-3625 x1
(3x6x2.5)mm

H2 x10
(Ball 2.381mm)

Spur Gear
53T x1



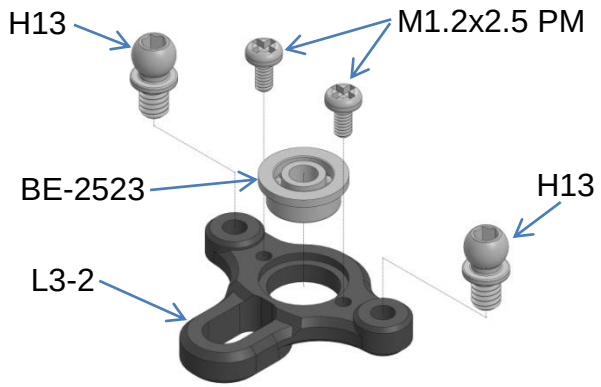
F Pack x1



M1.2x2.5 PM x2

H13 x2

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



M1.2x4 PB x2

M1.5x3.5 PM x2

M2x3 KM x2

M2x4 KM x4

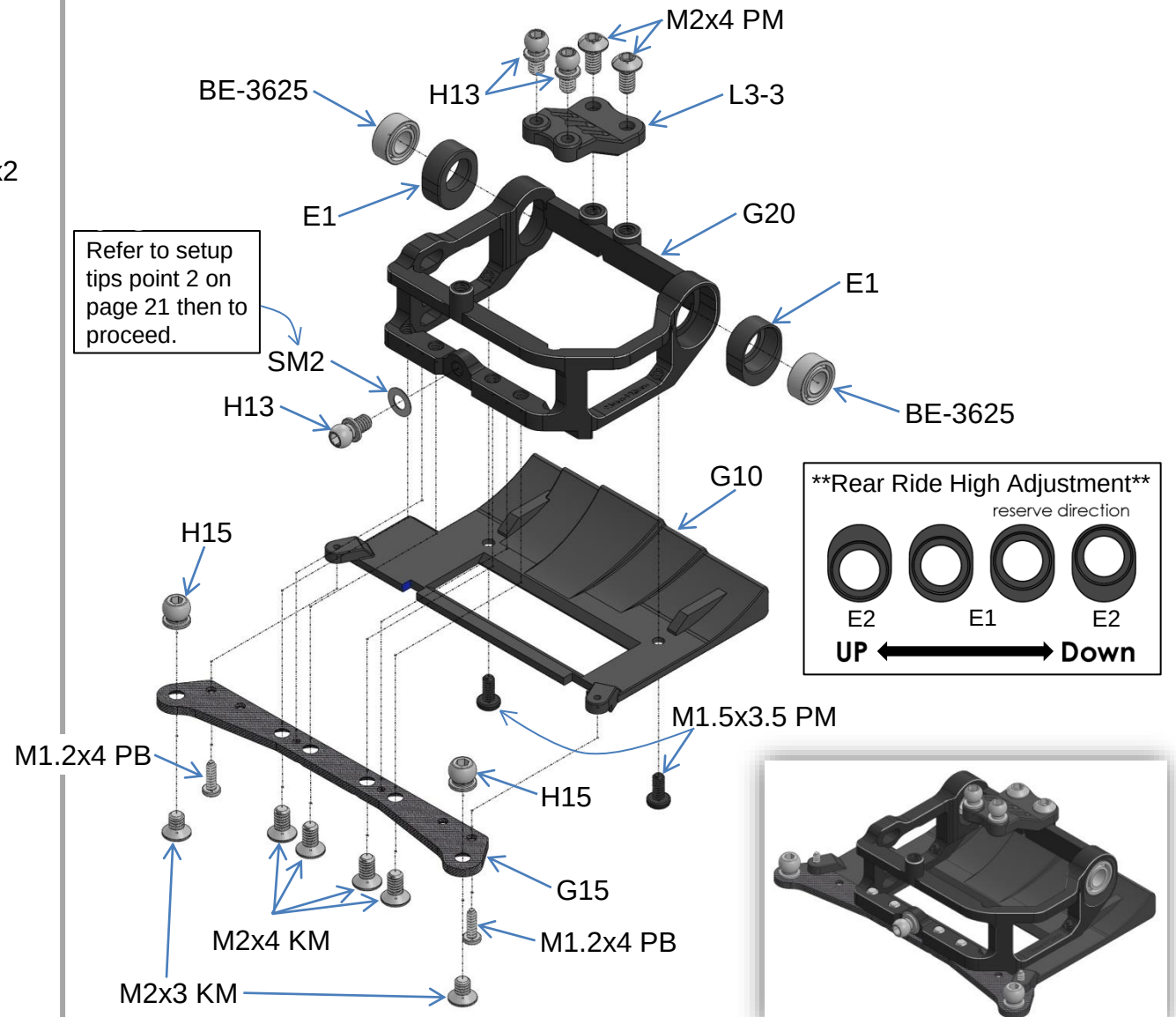
M2x4 PM x2

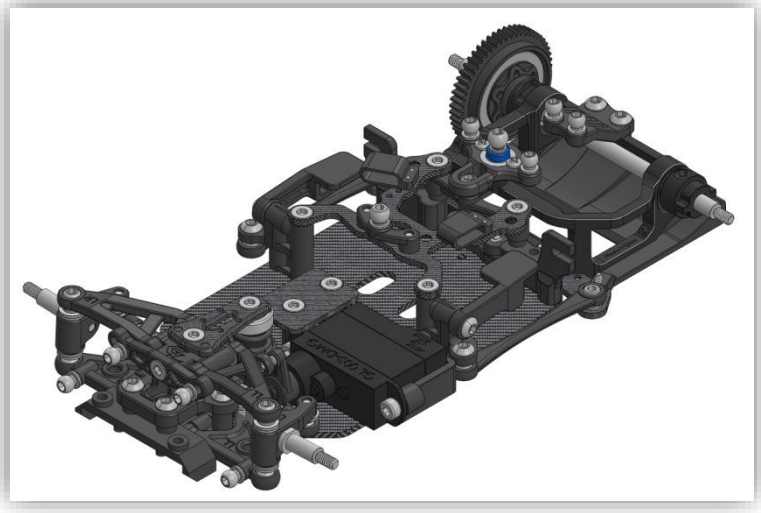
H13 x3
(BS-3025)

H15 x2
(BS-3520)

BE-3625 x2
(3x6x2.5)mm

SM2 x1
(2x4x0.2)





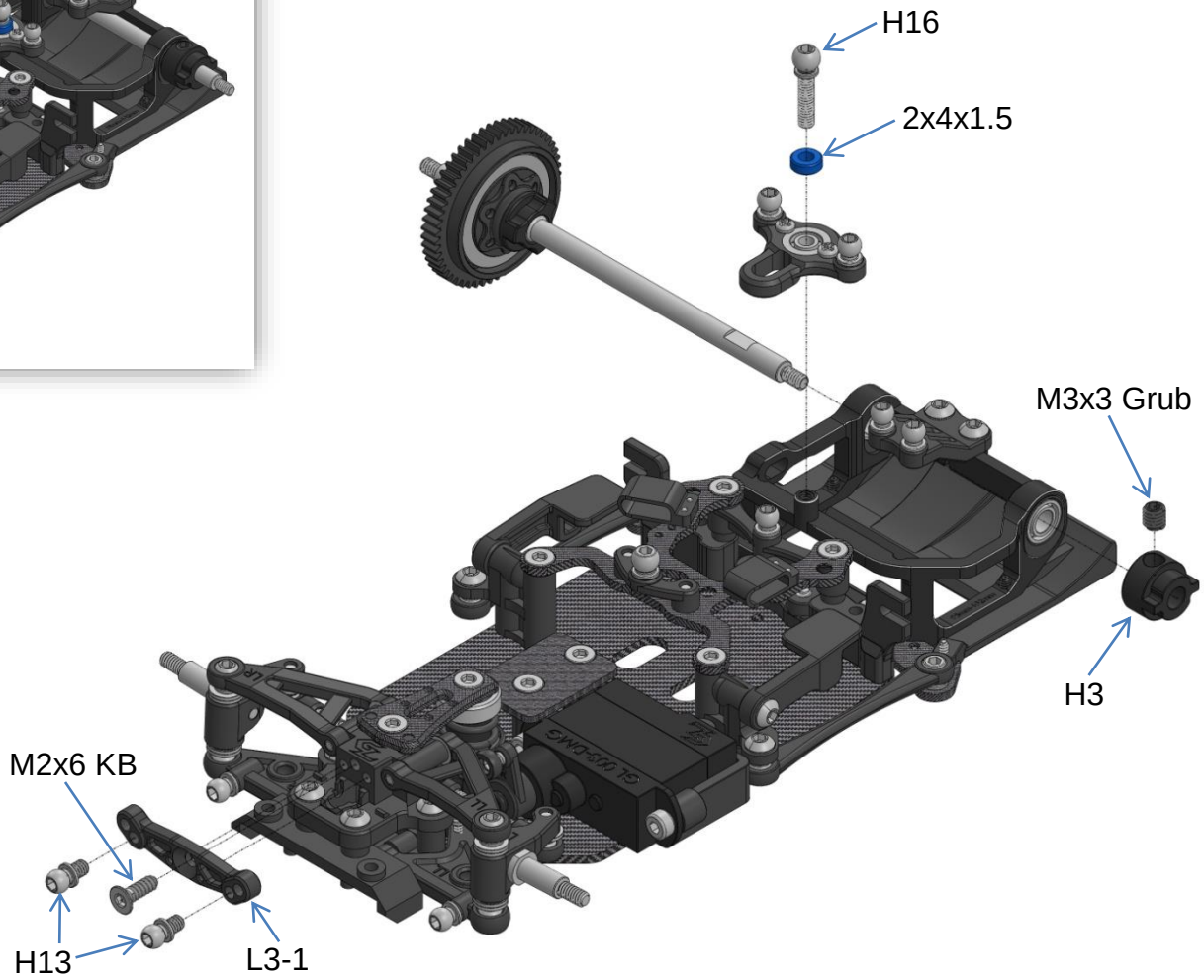
H13 x2
(BS-3025)

H16 x1
(BS-3580)

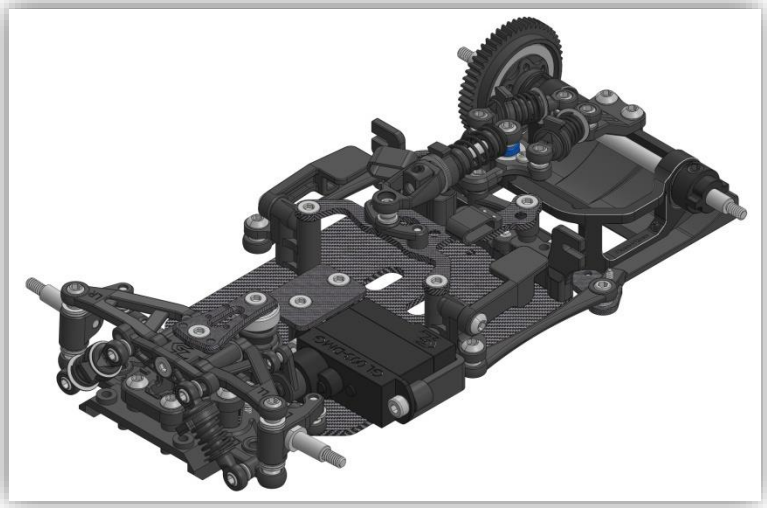
2x4x1.5 x1

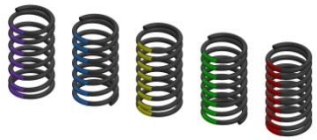
M3x3 Grub x1

M2x6 KB x1

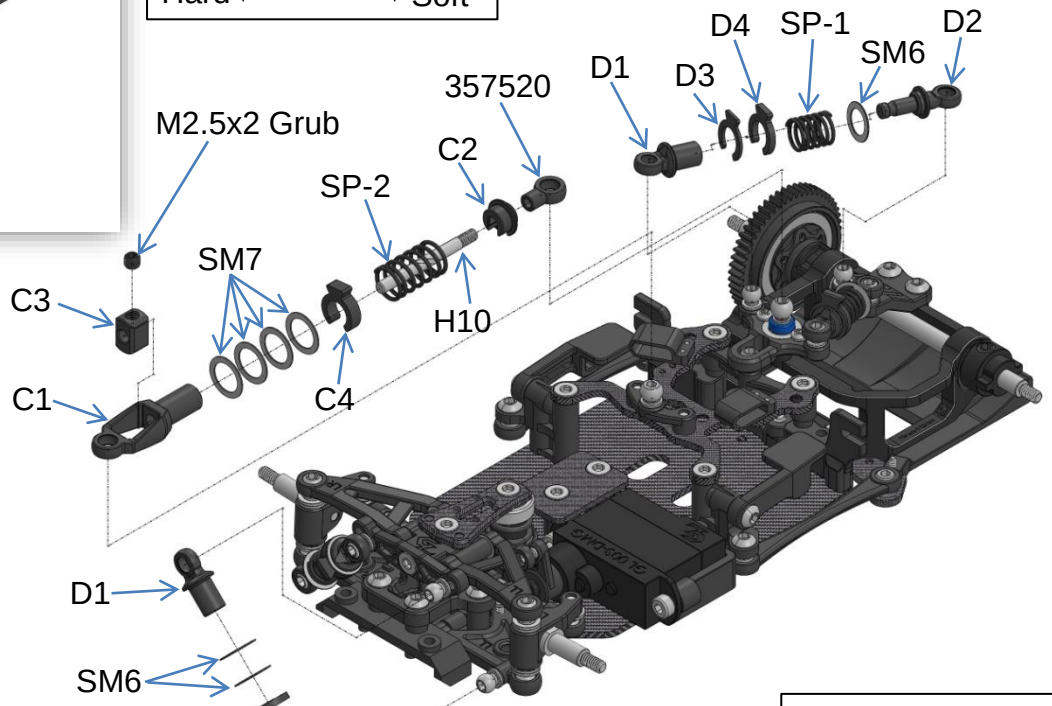


Options: GT-OP-007
T6 Alum. Front Shock Tower



Options: GT-OP003-C	
Spring Set -CS	
Hard ⟷ Soft	

Options: GT-OP-003 Adjustable central shock	
Options: GT-OP-004 Adjustable screw Shock	



SP-1 x4
(Ø5.3x6.5)mm

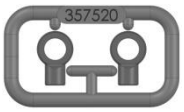
SP-2 x1
(Ø6x11)mm

SM6 x8
(4.2x6.4x0.2)

SM7 x4
(5x7x0.2)

M2.5x2
Grub x1

H10 x1

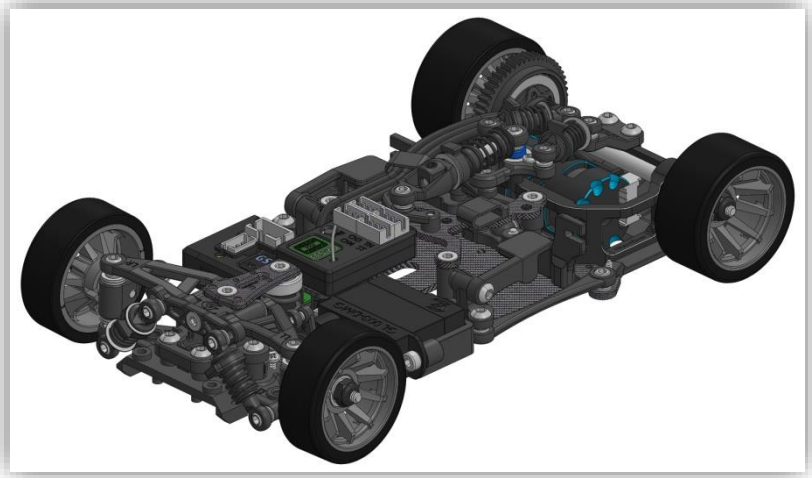


357520 x1

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



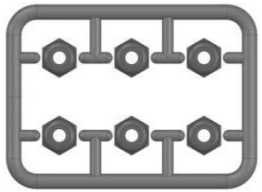
Options: GL-SD-ESC-010T
Brushless Sensored ESC

Brushless Motor is **NOT INCLUDED**
Recommended 3500KV for Stock
And 4500KV for Modified
Available at GL Online Shop

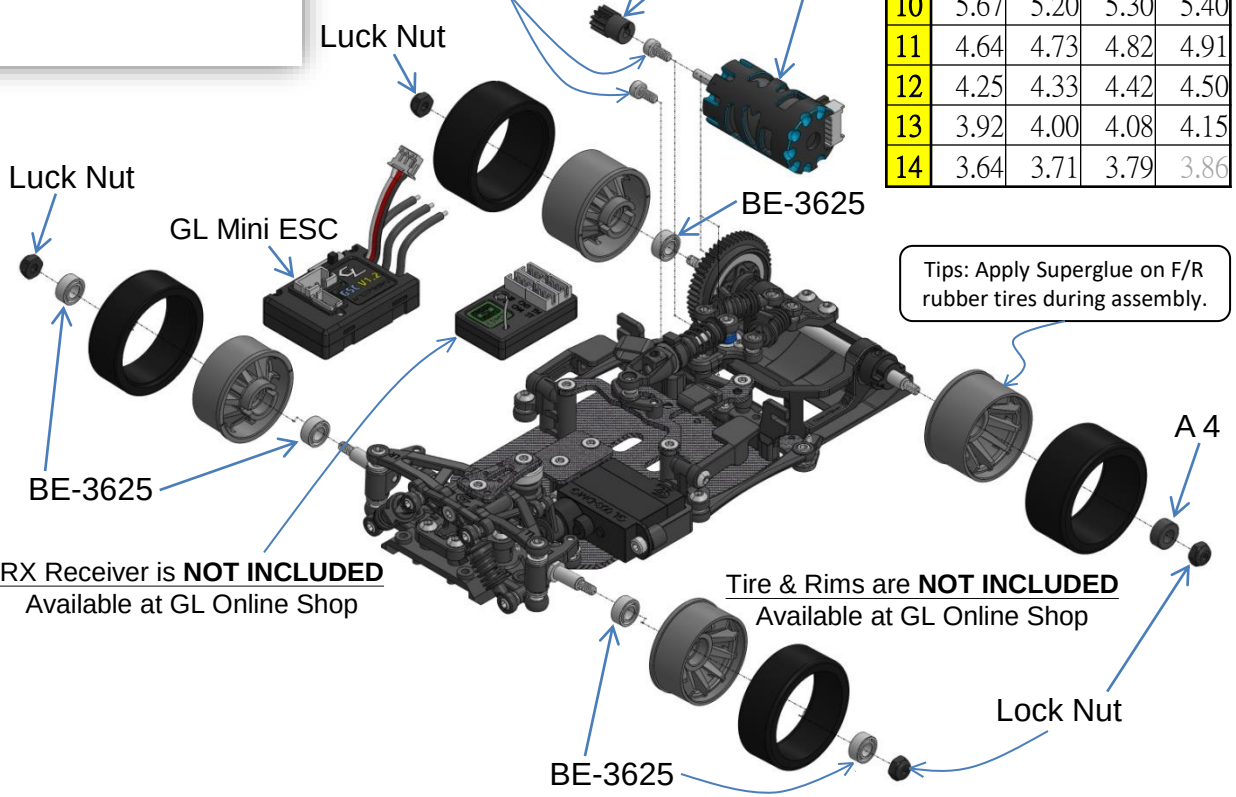
GLR-GT Gear Ratios				
	51	52	53	54
9	5.67	5.78	5.89	6.00
10	5.67	5.20	5.30	5.40
11	4.64	4.73	4.82	4.91
12	4.25	4.33	4.42	4.50
13	3.92	4.00	4.08	4.15
14	3.64	3.71	3.79	3.86

BE-3625 x5
(3x6x2.5)mm

M2x4 Cup Head x2

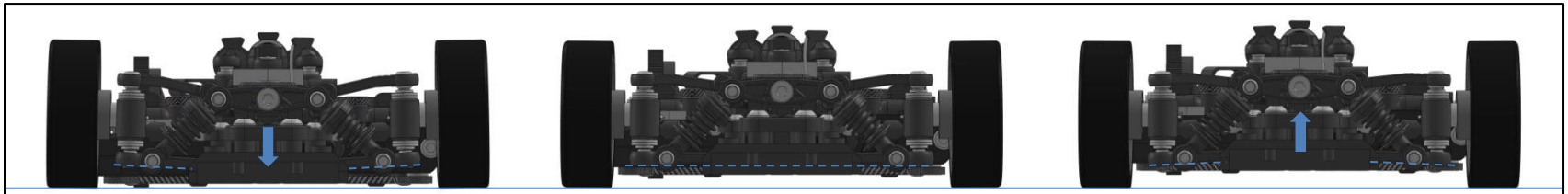


Lock Nut x1



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 for the RCP track.



Pic 5.1

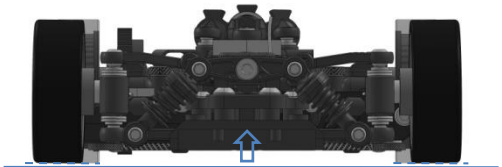
Not recommended
Screwing ***out*** the screw for fix.

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.

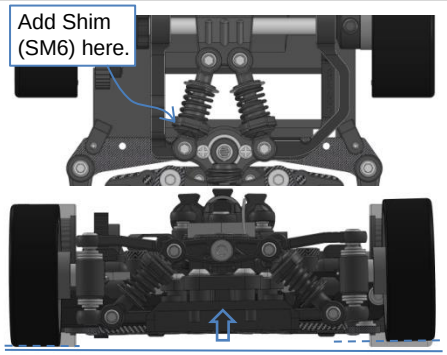
6, Check the chassis left / right balance. Install wheels in same diameter and place on flat floor. Lift the front up to see left and right wheels apart from the floor, you will see 2 situation below.

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.



Lift it up

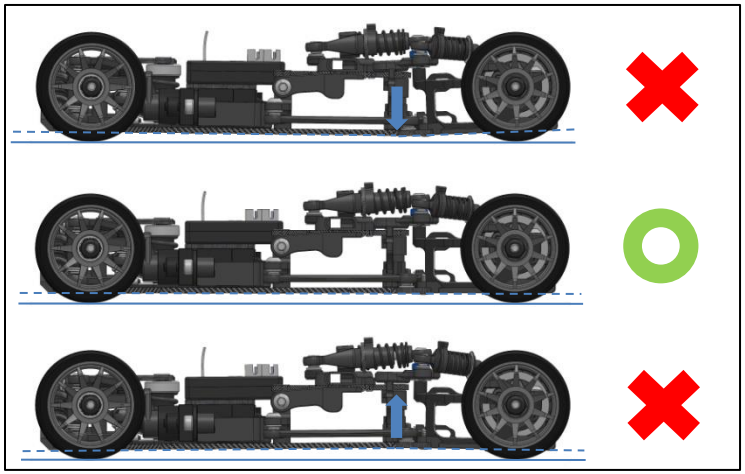
Basic setup/assembly tips before 1st run on **RCP Track**

Tips: If the car is new or just re-builded, 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 change the tension of the side damper, go back to check the point 6 to ensure the chassis 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.

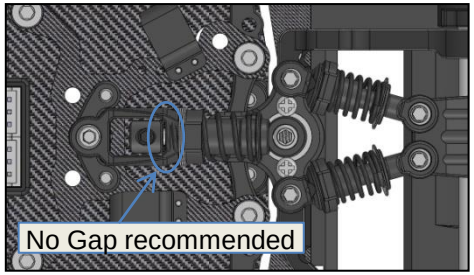
⇦ If the situation is on the left, congratulations!!! Go ahead for the race.

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

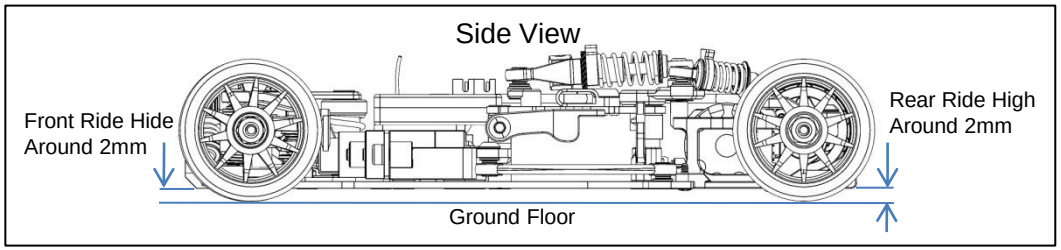


Adjust the C3 (page 19) with NO gap but need to keep the point 8 Front and Rear chassis in straight. This Gap = Down Stop for having unstable in all the time running on the high traction RCP track.

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

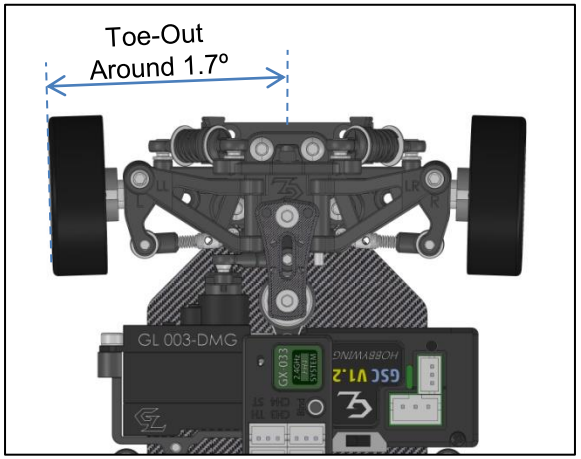
10, Adjusting ride high around **2mm** on front (P-8) and rear (P-17) before run. See pic 10.1.

Pic 10.1



11, Adjust the length of Steering Rods (P-11) in between 24.2mm to 24.5mm. 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
24.2mm is around toe-out 1.7° per side
24.5mm 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/GT0001-S18.5, 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 be freely before run.

Recommended Basic Options Parts

GT-OP007
GLR-GT T6 Alum. Front Shock Tower - Wide

GLR-GT Transponder Case PRO
GT-OP-013

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

GLR-GT Adjustable Screw Shock
GT-OP-004

GLR-GT Rear Shell Post 98mm-102mm
GT-OP-005

GLR-GT Brass Chassis
GT-OP-006

GLR-GT Anti-Roll Bar - Wide
GT-OP-002-W

GLR-GT Adjustable Screw Shock
GT-OP-004

GL-CR-20
GL Connector

GL titanium gear servo
GL-0820-TG

Carbon Lexan Bumper Set
GT-OP-028

GLR-GT T6 Alum. Steering Knuckles
GT-OP-008-0
GT-OP-008-2

GT-OP-008-1
GT-OP-008-3

Brushless sensored ESC
GL-SD-ESC-010T

GT-OP-009
GLR-GT T6 Alum. Servo Mount