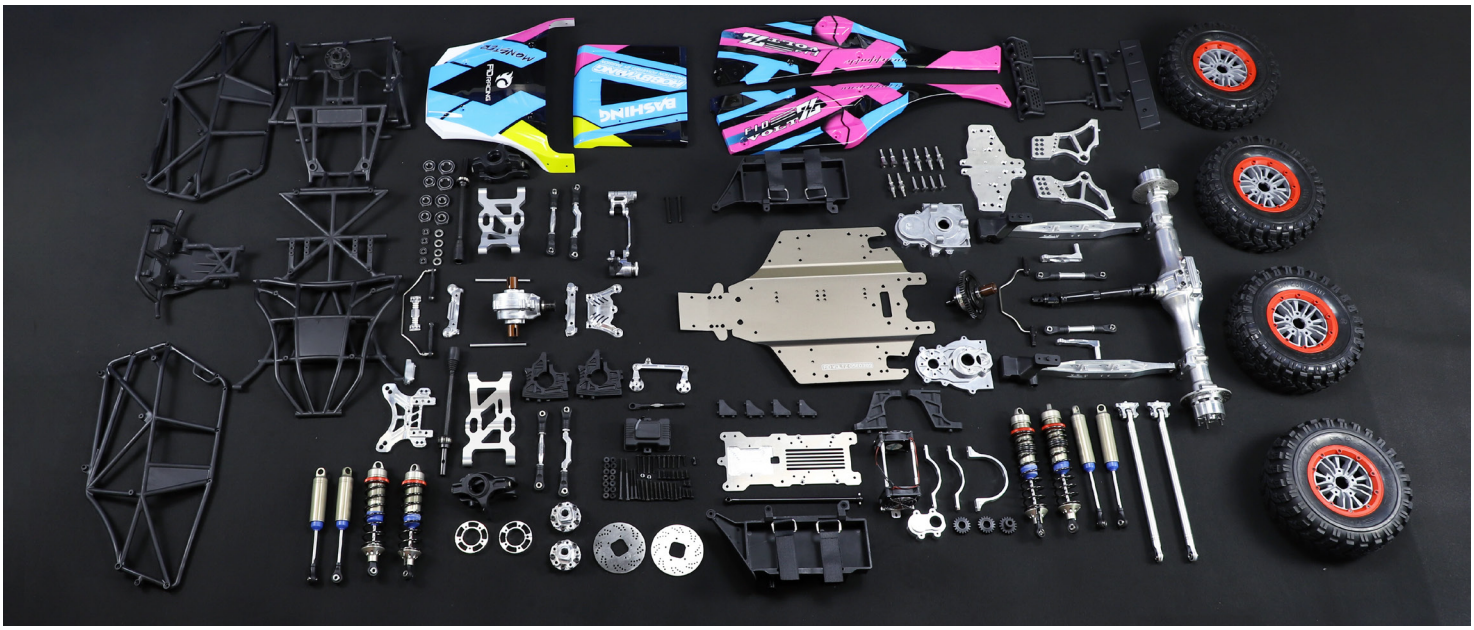
FID VOLTZ 2022

GENERAL SPECIFICATIONS

1. **Scale:** *Full size 1/5 scale*
2. **Drive Type:** *All wheel drive*
3. **L × W × H:** *910 × 570 × 424mm*
4. **Weight:** *18.5kg (roller), 22kg (RTR without batteries)*
5. **Max Speed:** *110km/h (12S)*
6. **Wheelbase:** *620mm*
7. **Max. Ground Clearance:** *140mm*
8. **Wheel Size:** *230 × 85mm*
9. **Total Gear Ratio:** *1/11.025*
10. **Battery Tray:** *190 (L) × 75 (W) × unlimited (H) mm*
11. **Differential:** *3 × metallic differentials*
12. **Chassis:** *5mm U-shaped plate, alloy 6061-T6 chassis*
13. **Front Suspension:** *Full metallic independent suspension*
14. **Rear Suspension:** *Full metallic solid rear axle 4 × link suspension*
15. **Shock System:** *All metallic, height adjustable, hydraulic shock and damper pair, shock body in alloy 7075-T6*
16. **Motor:** *HobbyWing Ezrun 70125SD, sensored brushless motor in 560KV 70/125mm*
17. **ESC:** *HobbyWing Ezrun Max4 HV, sensored brushless 300A 6~12S*
18. **Servo:** *2 × JX HV2070MG (70kg), full metallic*
19. **Spare Tyre:** *190 × 75mm (Optional)*
20. **Optional:** *4 × wheel hydraulic braking system*
21. **Body Shell Options:** *2 pattern design, One in transparent shell plus stickers, one in printed shell*

ROLLER KIT VERSION

It needs to be assembled manually. To complete it, it still needs motor, ESC, servo, radio, charger, battery.

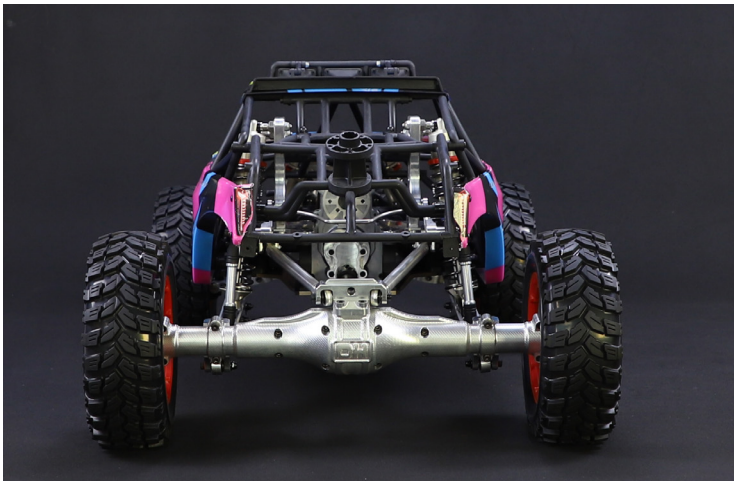





RTR VERSION

Pre-assembled. To complete it, it still needs radio, charger, battery.



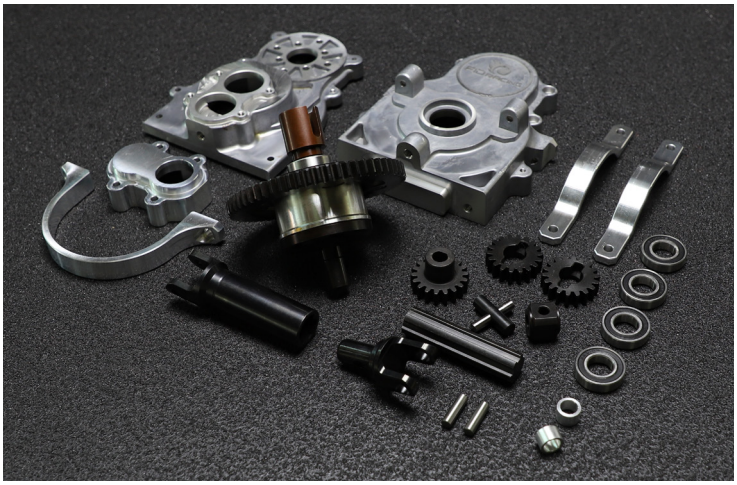



STRUCTURE DETAILS

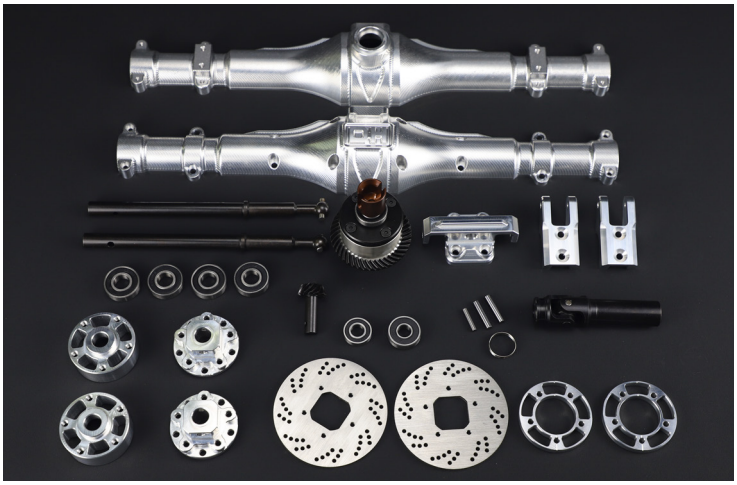

Front & Rear Differential: *Small crown gears is made in powder metallurgy method. Big helical crown gears is made of 20CrMnTi gearing steel via CNC. Drive cup is made of 65Mn spring steel, PIN in 5mm diameter, housing in aluminum alloy 6061-T6, differential lubricant in 50000cSt.*


Front Gearbox: *Gearbox housing is made of aluminum alloy ADC12 in die casting method. Small helical crown gear is made of 20CrMnTi gearing steel via CNC, and surface black-oxided. Gear ratio in 13T : 43T, and gear module in 1.5M.*


Central Differential: *Small crown gears is made in powder metallurgy method. Spur gear is made of 20CrMnTi gearing steel via CNC. Diff housing is made of aluminum alloy 6061-T6. 60T big gear and 2 × covers are made of 45#steel (equivalent to US 1045 steel and Europe C45 steel) via CNC, surface black-oxided. Drive cup in 65Mn spring steel. Differential Lubricant in 50000cSt.*



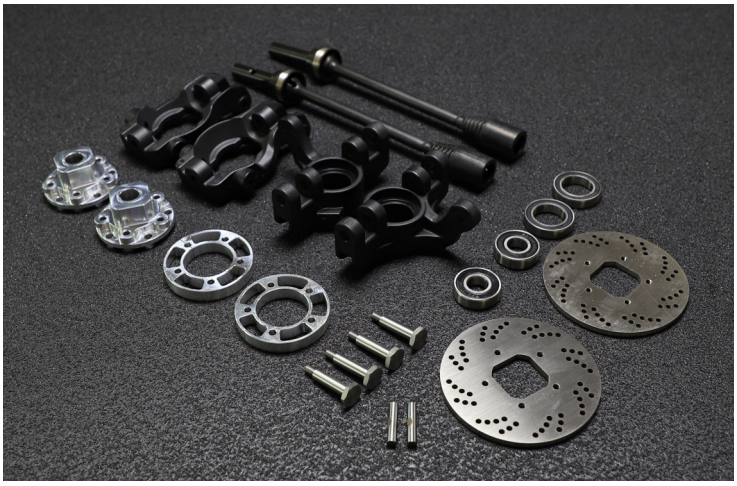

Central Gearbox: *Gearbox housing is made of aluminum alloy ADC12 in die casting method. The power transmits to rear axle through a low-level positioned reverse-rev gear setup at the back of gearbox, which lowers the center of gravity and effectively smoothes out the transmission. Central gearbox could match motors in diameter range 56 ~ 70mm. Motor shaft gear is fixed through D hole and a 8mm set screw. Central gearbox connects to rear axle through 25mm diameter spline joint telescopic drive shaft.*



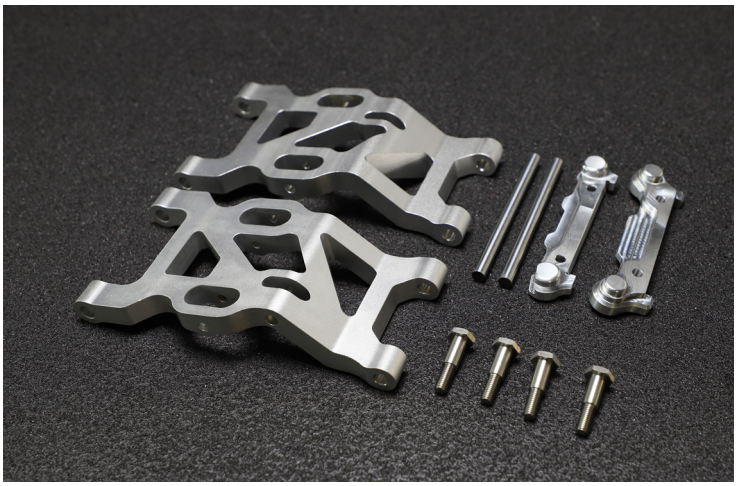
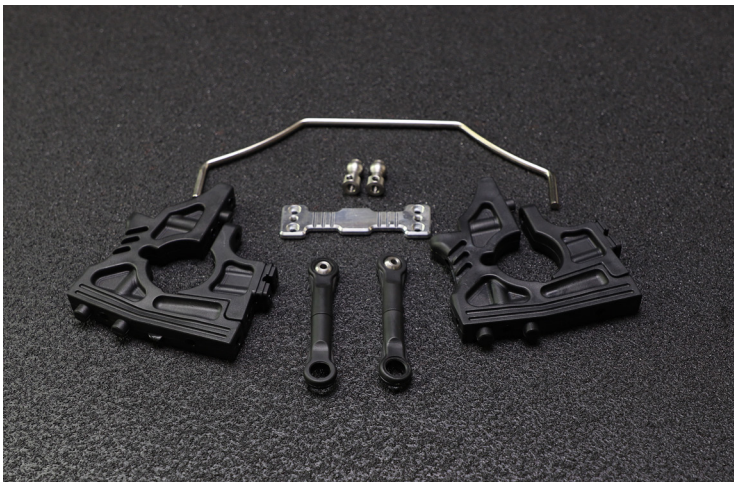

Solid Rear Axle: *Rear axle housings are made of one-piece aluminum alloy 6061-T6 via CNC, and decorated with beautiful line pattern. Wheel comes with 4mm thick brake disc compatible with FID Racing hydraulic braking system. Inside the axle is a metallic differential as introduced above. Wheel hub comes with 5 × lugs adapter, stable and real-life.*


Front & Rear Hydraulic Shocks: *Shock bodies are made of aluminum alloy 7075-T6 with better abrasion resistance. Inner plugs are made of best Polyoxymethylene (POM) material, as well with good abrasive resistance and strength. Dual seal ring design, 7mm dia. shock shaft, springs made of 3mm diameter music wire, treated with hardening process and black-oxidation. Rear shock consists of two springs.*

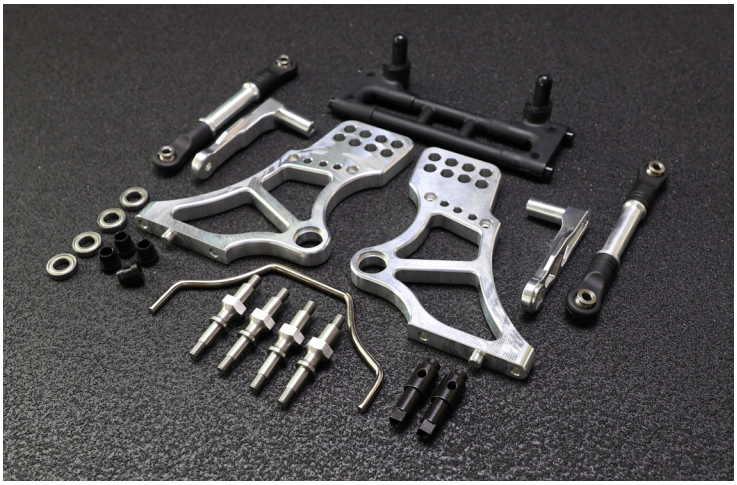

Front & Rear Hydraulic Dampers: *Damper bodies are made of aluminum alloy 7075-T6, with better abrasion resistance. Inner plugs are made of best Polyoxymethylene (POM) material, with good abrasive resistance and strength. Dual seal ring design, 7mm dia. damper shaft. Working with shock to provide best shock absorbing effect.*



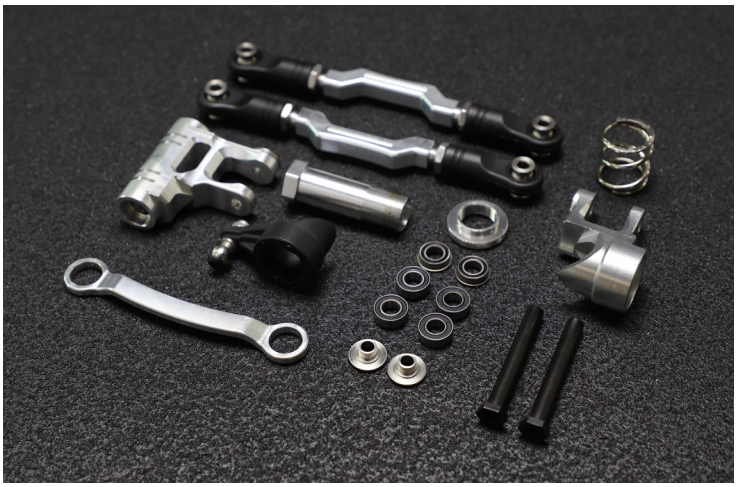
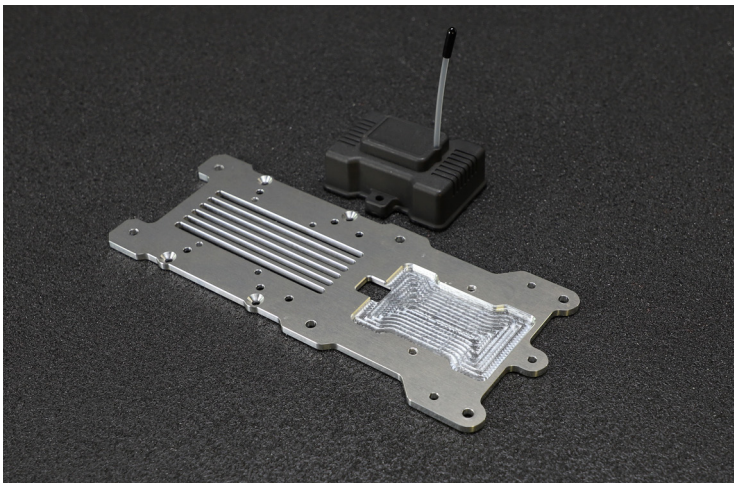

Front Wheel System: *Spindle carrier is made of nylon PA6. 4mm thick brake disc comes in standard configuraton and is compatible with FID Racing hydraulic braking system. Front wheel drive shaft is made of 45# steel (equivalent to US 1045 steel and Europe C45 steel), heat treated and black-oxided. 5mm PIN for drive axle cup. 5 × lugs wheel adapter in aluminum alloy 6061-T6.*

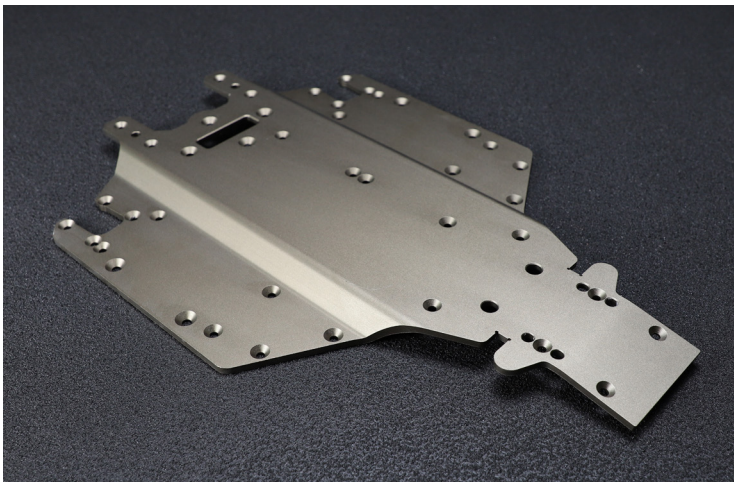
Front Arm: *Arm and arm braces are made of aluminum alloy 6061-T6. Arm PIN upgrades to 7mm diameter and is made of hard chrome steel GCr15. Nylon gearbox braces (optional metallic braces) and 4mm diameter swaybar.*



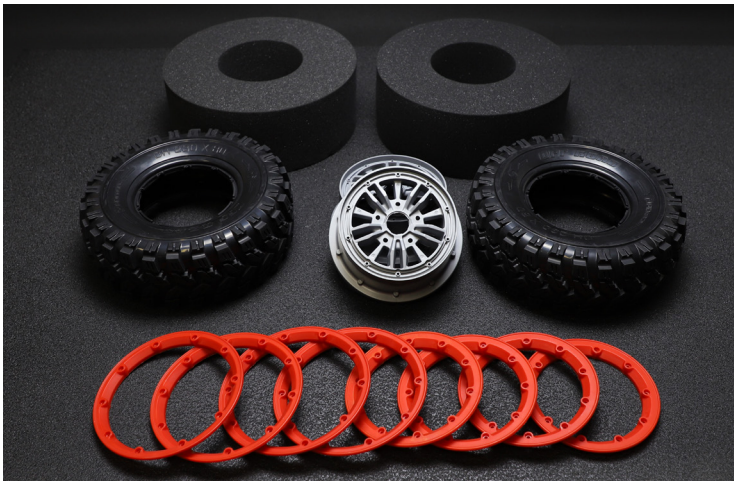

Front & Rear Shock Towers: *Shock towers are made of aluminum alloy 6061-T6 via CNC. Rear swaybar is redesigned and upgrades to 4.5mm diameter. Shock and damper mount in stainless steel.*

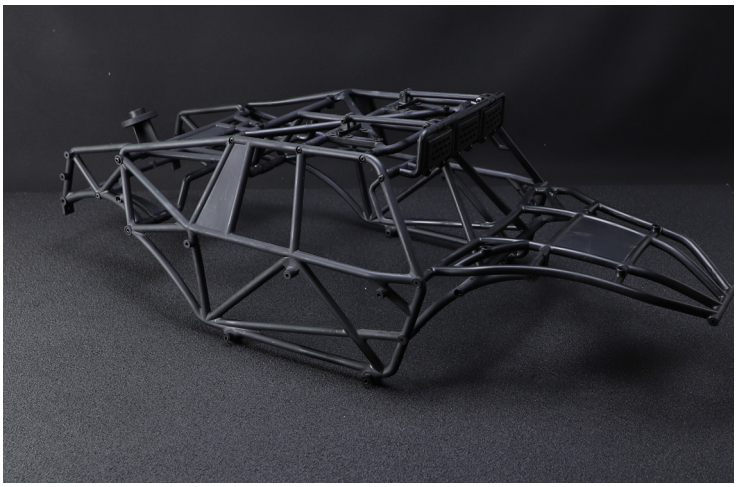
Steering & ESC Mount: *Ackermann steering system design, automatic return-to-center, servo protection mechanism against big impact or too much turning force. ESC mount is made of aluminum alloy 6061-T6.*

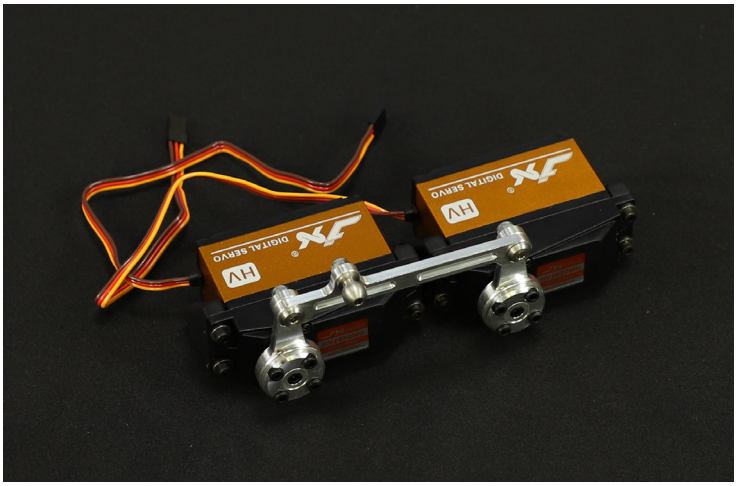
Trailing Arm & Chassis: *Trailing arm and rear link rod are made of aluminum alloy 6061-T6 via CNC and come with ball bearing end. 5mm thick chassis plate is made of aluminum alloy 6061-T6, and further strengthened with U-shape design.*



Battery Tray & Wheel: *Each battery tray could accommodate max. 6S / 16000mAh battery. Wheel rim is redesigned and made of nylon material, comes with inside and outside red bead-dlock rings, real-life scale. Off-road type tyre with foam insert provides high traction.*

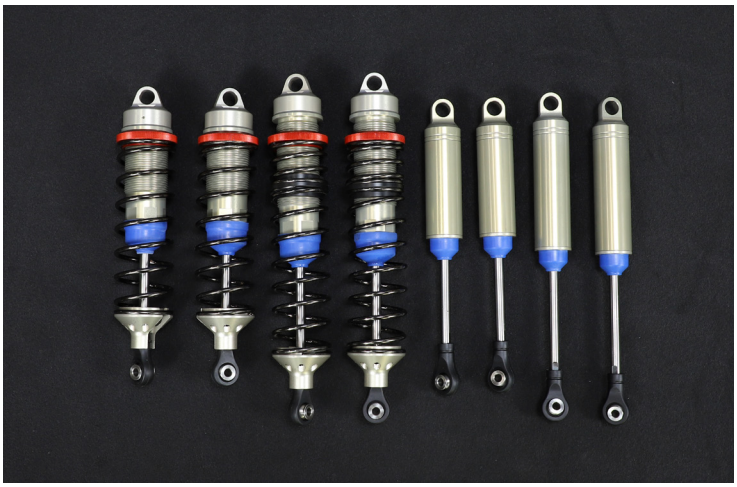


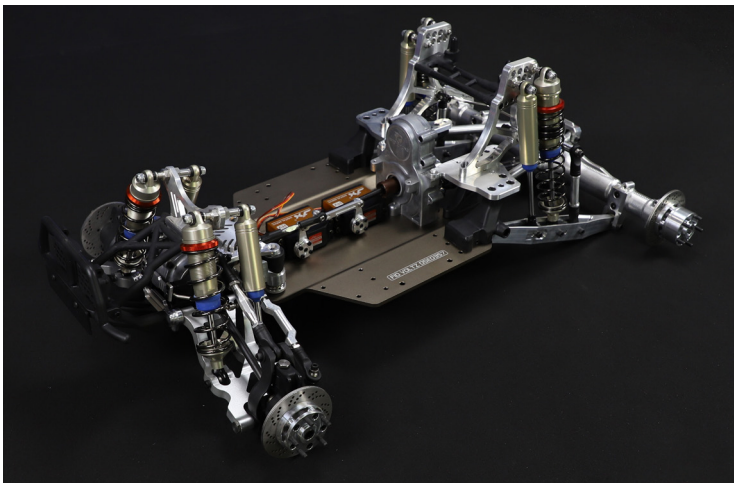
Body Shell & Roll Cage: *Body shell is made of 1.5mm thick PC material. Roll cage is made of 10mm diameter rod in high-strength nylon PA6 material.*

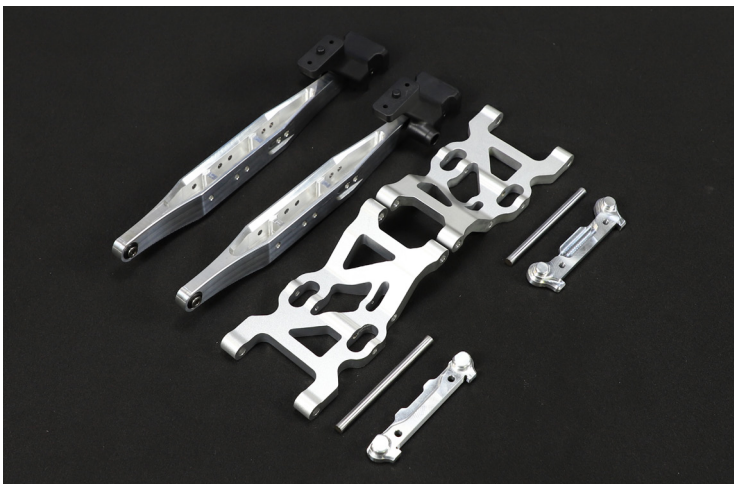


Steering Driver: *Steering system consists of 2 × metallic 70kg servos, and stepless adjustable sync servo arms. All metallic and solid, quick and precise response.*

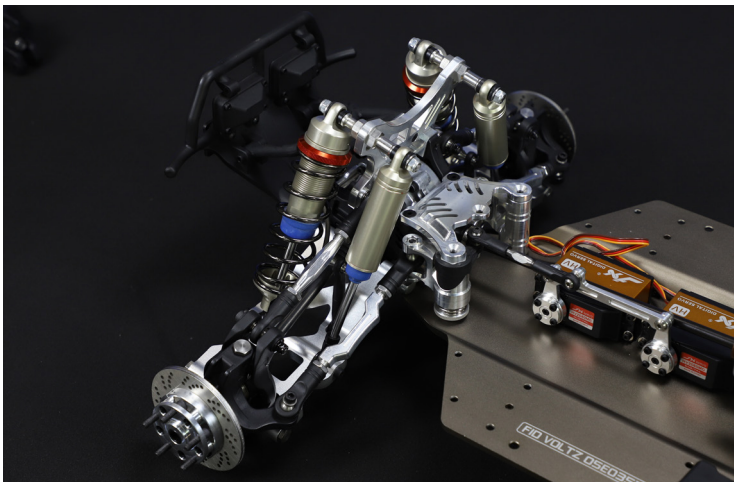
Power System: *Power system is popular HobbyWing Max4 combo including a 560KV sensored brushless motor and a 300A / 12S sensored brushless ESC. It supports Bluetooth addon and enables Voltz to max speed 116km/h.*












General Specifications

Main Chassis	*Alloy 6061-T6*
Chassis	*Alloy 6061-T6, U-Shape 5mm thick, CNC machined and Anodized*
Roll Cage	*Nylon PA6, 10mm dia.*
Shell	*1.5mm thick PC sheet*
Battery Tray	*L 190 × W 75 × H unlimited (mm)*
Tyre	*230 × 80mm, 6mm thick tire tread, natural rubber*
Wheel Rim	*Nylon PA6, real life scale 5 × lugs fastened wheel*
Wheet Hub	*CNC machined billet alloy, comes with brake disc ready*
Braking System	*4 wheel Hydraulic Braking System, Front / Rear independent controlled, 2 × hydraulic pumps in CNC alloy 7075, 2 × drive motors, 2 × pistons / caliper, 4 x float calipers (Optional)*
Ground Clearance	*140mm*

Spare Tyre	*195 × 75mm (optional)*
Truck Size	*L 910 × W 570 × H 424(mm)*
Weight	*18.5kg (roller), 22kg (RTR without batteries)*

Front Suspension

Shock Tower	*Alloy 6061-T6, CNC machined*
Upper Arm	*Stainless Steel 303 Ball, Nylon PA6 Ball Ends, Alloy 6061-T6 Adjustable Stud Bolts in M8 x 1*
Lower Arm	*Alloy 6061-T6, CNC Machined, Sandblasted and Annodized*
Lower Arm Braces	*Alloy 6061-T6, CNC Machined, 7mm arm PIN in bearing steel*
Front Gearbox	*Alloy ADC12 die cast and then CNC machined*
Front Diff	*CNC alloy 6061-T6 housing, crown gear made in high strength powder metallurgy method, drive cup in spring steel, black oxied, helical cut gears in 20CrMnTi steel, all gears are heat treated, lubricant 50,000cSt*
Front Shock	*Alloy 7075-T6 shock body, hard annodized, in 24mm inner dia., shock shaft in 7mm dia., spring in 3mm dia.music wire, shock oil in 200cSt*
Front Damper	*Alloy 7075-T6 shock body, hard annodized, in 20mm inner dia., shock shaft in 7mm dia., spring in 3mm dia.music wire, shock oil in 200cSt*
Front Bumper	*Nylon PA6, allowing for custom head light*
Front Swaybar	*4mm spring steel and heat treated*
Front Hub	*Equipped brake disc in 4mm thick and stainless steel grade 303, allowing for upgrading to Hydraulic Braking System, 5 lugs connection*
Front Hub PIN	*5mm PIN in bearing steel*
Front CVD Shaft	*Grade 45# steel, 18mm dia., black oxided*

Rear Suspension

Rear Shock Tower	*Alloy 6061-T6 shock tower in 12mm thick, CNC machined*
Rear Upper Plate	*Alloy 6061-T6, 8mm thick, CNC machined*
Trailing Arm	*Alloy 6061-T6 trailing arm with fisheye bearing, CNC machined*
Upper Link Rod	*Alloy 6061-T6, CNC machined, 15mm dia., with fisheye bearing*
Link Rod Mounts	*Alloy 6061-T6, CNC machined, with tow-hook mount*
Rear Solid Axle	*Alloy 6061-T6, one-piece CNC machined*
Straight Axle Shaft	*45# steel in 12mm dia., heat treated*
Rear Diff	*CNC alloy 6061-T6 housing, crown gear made in high strength powder metallurgy method, drive cup in spring steel, black oxied, helical cut gears in 20CrMnTi steel, all gears are heat treated, lubricant 50,000cSt*
Drive Shaft	*Telescopic shaft in 25mm dia., universal joint, in 45# steel, black-oxided*
Rear Hub	*Extended metallic hub with 4mm thick brake disc*
Central Gearbox	*Alloy ADC12 die cast and then CNC machined*
Central Diff	*CNC alloy 6061-T6 housing, crown gear made in high strength powder metallurgy method, drive cup in spring steel, black oxied, helical cut gears in 20CrMnTi steel, all gears are heat treated, lubricant 50,000cSt*
Central Transmission	*Counter-rotation design, rear drive shaft with low center-of-gravity for stable running*
Gear Module	*Gear module in 1.5m*
Total Gear Ratio	*1/11.025*
Max Speed	*Max 110km/h*

Electronics

Steering Servo	*2 × 70kg Metallic Servos*
Servo Horn / Arm	*Adjustable Sync Arm in alloy 6061-T6*
Steering Mechanism	*Ackermann Steering Mechanism, designed with automatic return-to-center and protection of servo against impact or too much turning force*
ESC	*HobbyWing Max4 300A 12S*
Motor	*HobbyWing 70125SD Motor in 560KV*
Motor Fan	*2 × 12V high speed fans*
Battery Tray	*QS80 connector*
Radio	*4 or more channels remote*
Charger	*6S ~ 12S*

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