1:28 RWD (Rear Wheel Drive) Competition Pan Car Chassis
**Fine threaded Screw 2*4**

**Self-Tapping Screw 2*4**

**Steel Washer 2*4*0.5mm**

**3.5mm Steel Ball**

**3.5mm Steel Ball (Long Leg)**

**Pivot Base**

**Main Chassis Plate**

**Plastic Pivot Joint**

**Motor Plate (carbon)**

**Leave around 1mm gap**

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**02 Chassis Center Pivot**
03 Pivot Joint Installation

Adjust the screws to make sure the ball head rotate smoothly inside the pivot base.

04 Install Side Links

After fixing the Side Links, use 1.5mm Hex driver to adjust the distance between Ball Head and the Plastic Pivot Joint, to make sure the motor plate can rotate smoothly.
05 Side Body Mount (open Bag 06, 07)

- Self-Tapping Screw 2*4

Pay attention to the orientation of the mount. “Wave shape” is facing Upward.

06 Car Body Mount Plate

- Carbon body mount
- Self-Tapping Screw 2*4
07 Car Body Mount Plate

- Self-Tapping Screw 2*4

Pay attention to the orientation of the mount. “Wave shape” is facing **Downward**.

08 Motor Pod

- Fine threaded Screw 2*4
09  Ride Height Spacers

Fine threaded Screw 2*6

0.3mm spacers x 3

Motor Mount (L)

0.3mm spacers x 3

10  Side Spring Trays (open Bag 08)

Side Spring Tray

Metal Lock Nut M2

Fine threaded Screw 2*8

Leave about 0.8 mm gap
11 Side Springs (open Bag 09)

The side spring will be held firmly by the screw thread once you fix them onto the screw, so you need to rotate the spring anti-clockwise if you want to take them out. (like removing a screw)

Do not just pull the spring out, it will damage it.

12 Body Post Plate

3.5mm Steel Ball Head

Steel Washer 2*4*0.5mm

Fine threaded Screw 2*6

Before install the springs, fully compress them few times, to run-in (warm up). This makes sure spring to show the true elasticity. Fail to do this step, the rear grip of car will be decreased.
13 Middle Chassis Support

Steel Support Post

Fine threaded Screw 2*4

14 Battery Mount

Plastic Mount

Apply Instant Glue to Fix

Plastic Mount

Apply Instant Glue to Fix

Carbon Plate
15 Battery Mount Door

- 3.5mm Steel Ball
- Steel Washer 2*4*0.5mm
- Fine threaded Button Head 2*4
- Rubber O-ring (3x1.5x0.75)
- Battery Mount Door (carbon)
- M1.6 * 4 Button Head

M1.6 * 4 Button Head (please do not mixed up with M2 screws)

16 Battery Mount Installation

- Fine threaded 2*4

Fine threaded 2*4
17 Lateral Shock Dampers

Apply #25000 or 35000 damper grease to the shaft.
18 Center Shock Damper

- Spring Tension Collar
- Shock Body
- 3.5mm Ball Cap
- Steel Shock Shaft

1. Apply #25000 or 35000 damper grease to the shaft.

2. Insert Small Mid Spring (3mm long)

3. Center Spring (may need some force to get it in place, no worry just push it, spring is flexible)

4. Spring support (Plastic)

5. M2 set screw (Steel)
19 Center Shock Damper

20 Servo Horn

Servo (not included)

MRZ suitable servos: size within 20.0(W) * 18.0(L) * 8.5 (H) mm

2.5mm Steel Ball Head, M1.4 thread

** The Second Top Hole is recommended.

Please use the screw and servo horn that come with the servo.
21 Servo Installation (open Bag 10)

- Servo Mount (plastic)
- Front Bulkhead

Fine threaded 2*6
Self-Tapping 2*4
Fine threaded 2*4

22 Upper Arm Mount

- Aluminium Arm Mount
- Steel Steering Crank Post
- Servo Plate (Carbon)

Fine threaded 2*4
Fine threaded 2*4
Fine threaded 2*8
(better to use some thread lock here)
23 Upper Arm Mount

- Fine threaded 2*4
- Self-Tapping 2*4
24 Install the Pivot Balls

First, insert the pivot ball vertically.

Then, rotate the ball 90 degrees.

The ball will sit in the groove.
25 Steering Knuckles

Build Left and Right Knuckle as picture shown

2.5m Steel Long Neck
Ball Head

25 Steering Knuckles

Second hole: mild steering
Front hole: aggressive steering

Steel Wheel Axle:
Apply instant glue to secure the axle to the knuckle

King Pin Come out
2.5mm

King Pin

Steel Washer
2*4*0.5mm x 3 pcs

Steel Washer
2*4*0.2mm

Front Spring (4mm Long)
(apply #25000 grease to the king pin)
26 Knuckle Ball Heads

King Pin and 3.5 Steel Ball needed to be tightened firmly. Otherwise they may get loose during running.

3.5mm Steel Ball
Steel Washer 2*4*0.5mm

27 Upper Arms

Leave around 0.3mm gap

M1.4 * 8 Steel Screw
Steel Washer 1.5*2.5*0.2mm
M1.4 Brass Nut
3.5 Ball Cap

Do not over tighten the screw, it may damage the plastic arm
28 Upper Arms

- 0.05mm Steel Washer:
  To eliminate wobble if necessary.
- 1.5*10 Steel Pin
- M2 *2 Set Screw (to secure the pin)

29 Steering Crank

- 3*6*2 Bearing
- 2.5mm Steel Ball Head
- 2.5mm Steel Ball Head
- Steering Crank (Plastic)
30 Installing Steering Crank

Tighten the Nylon nut slowly, adjust it and make sure the crank rotates smooth and no wobble.

31 Steering Linkages

Around 20.2mm

YouTube Video: Scan this QR Code to see how to make the ball link Smooth and no wobble.

https://www.youtube.com/watch?feature=youtu.be&v=RMhkoiUS og
### 32 Servo Linkage
Trim the 2.5 ball caps, shorten it around 0.8 to 1.0mm and use M1.5 x 5 steel link to joint. Make a short linkage.

### 33 Gear Differential (open Bag 11)
Right Wheel Hub (plastic)

Diff Housing

5 x 8 x 2 Bearing
Apply Thrust Bearing Grease to each moving parts and gear surface

Ring Gear (HEX Hole)
Satellite Gear x 4

Ring Gear (Round Hole)
M1.4 x 4 screw
3 x 6 x 2 Bearing
Diff Cover
Diff Steel Shaft
36  Gear Differential

- 3 x 6 x 2 Bearing
- E-Clip

37  Spur Gear

- Spur Gear
- O-Ring (Rubber)
  14mm inner hole
38  Install the Differential

- 3 x 4.1 x 0.1mm White Shims
- 3 x 6 x 2.5 Bearing

39  Wheel Adaptor

- 3 x 4.1 x 0.1mm White Shims
- M2.5 set screw
- Wheel Adaptor (Aluminium)
Rear Diffuser – some of the car body might not be able to install diffuser.

Hex Flat Head M2*4

40 Side Spring Adjust

Adjust the side spring cup, to make the spring just barely touch the top plate.

Note:
- More pre-load to the plate, the car will have more steering, rear spin faster in corners.
- Less pre-load, will make the car has more rear grip.
End of Assembly
<table>
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<tr>
<th>Part Number</th>
<th>Description</th>
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<td>MRZ Metal Servo Saver (M1.6 for BA-82MG)</td>
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<tr>
<td>MRZ-UP02S</td>
<td>MRZ Front Spring Soft (Blue)</td>
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<tr>
<td>MRZ-UP02M</td>
<td>MRZ Front Spring Medium (Red)</td>
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<tr>
<td>MRZ-UP02H</td>
<td>MRZ Front Spring Hard (White)</td>
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<td>MRZ Side Spring Extra Soft (Green)</td>
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<tr>
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<td>MRZ Side Spring Soft (Blue)</td>
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<td>MRZ Mid Spring Hard (Yellow)</td>
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<td>MRZ-UP05</td>
<td>Spacer for Motor Pod (0.3mm) 6 pcs</td>
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<td>MRZ-UP06</td>
<td>Spacer for Front Body Mount (0.5mm) 2 pcs</td>
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<td>MRZ-UP07</td>
<td>MRZ Double A-Arm Conversion Kit</td>
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<td>MRZ-UP07P1</td>
<td>DWS Spare Lower Arms w/ Pin</td>
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<td>MRZ-UP07P2</td>
<td>DWS Optional Spring Set</td>
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<td>MRZ-UP07P3</td>
<td>DWS Damper Shock</td>
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<td>MRZ-UP08</td>
<td>MRZ Alu. Servo Mount</td>
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<td>MRZ-UP09</td>
<td>MRZ Alu. Knuckle</td>
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<td>MRZ Alu. Upper Arm</td>
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<td>MRZ Alu. Central Mount</td>
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<td>MRZ-UP12G</td>
<td>MRZ Alu. Steering Crank (Gold)</td>
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<td>MRZ-UP12K</td>
<td>MRZ Alu. Steering Crank (Black)</td>
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<td>MRZ 102mm WB Motor Pod Plate</td>
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<td>MRZ Arm Mount Caster 2 Deg.</td>
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<td>MRZ Arm Mount Caster 4 Deg.</td>
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<td>Spacer for Front Ride Height (0.25mm)</td>
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<td>MRZ-UP21</td>
<td>MRZ Light weight Mid Damper Shaft</td>
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<tr>
<td>MRZ-UP22</td>
<td>MRZ Rear Body Post</td>
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