

# 1/64 Drift RC Car

## DKM64 V2.2

### Build Guide

#### A. Chassis dimensions:

- Wheel-base: 37.3 to 42.7 mm
- Front wheel width: 31.8 mm
- Rear wheel width: 30.4 mm

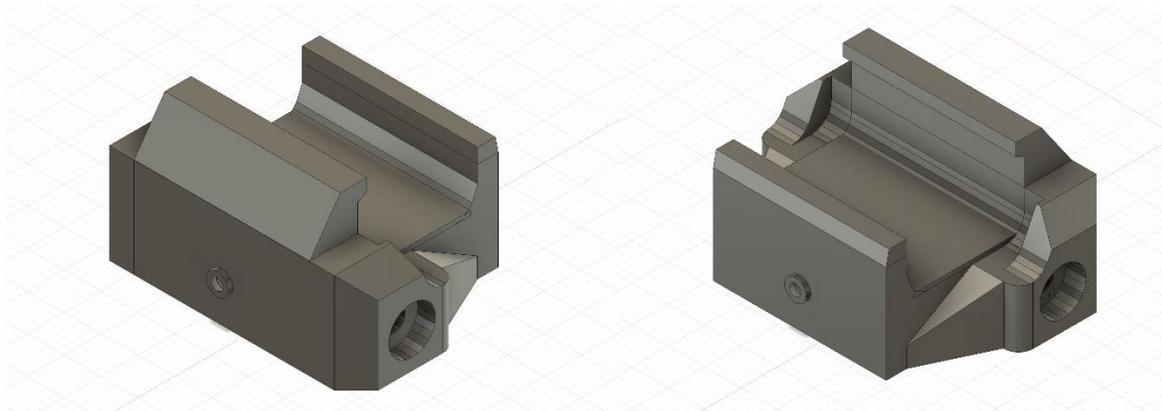
#### B. 3D Print files: 10 files to complete 1 car kit

##### Optional files for Rear Magnet Mount [car's body mounting height]:

- 6.5mm [optional]
- 7.3mm [default]
- 8.0mm [optional]

#### C. Adjustable wheel-base length:

- Flip over the rear chassis to get 5mm difference in length
- Add 1mm washers between Main chassis and Rear chassis to increase length

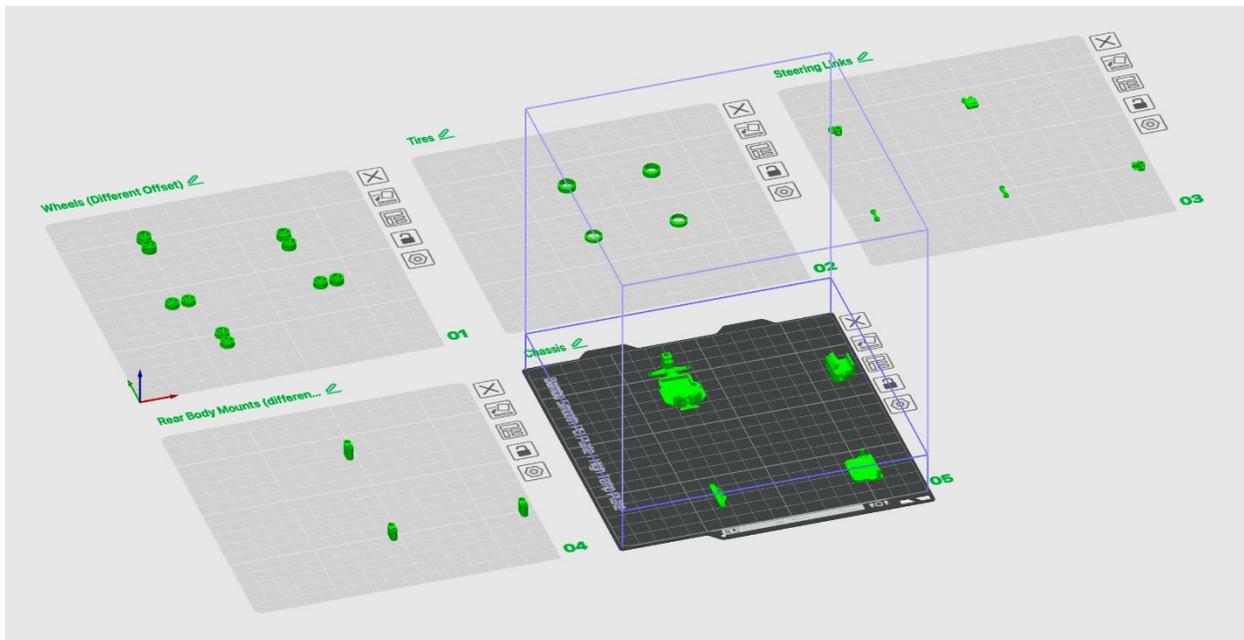


#### D. Required Parts:

- 1x Motor: FF-K20-9Z100 Mini K20 Motor DC 1.5V 3V 3.7V 30000RPM High Speed Micro 8mm\*6mm\*14.5mm. from AliExpress.com
- 1x ESC: DM-Racing NEZ ESC from GT55 website
- 1x Servo: DM-Racing Linear Servo from GT55 website
- 1x Nano Receiver with Gyro: up to your controller protocol, as long it is not bigger than 19mm x 12mm, and has a drift capable Gyro.
- Rear drive axle: M1 (OD: 1mm) rod cut to 28mm length
- Spur Gear: 0.2Modulus, 1mm hole, 2mm thickness, 40T
- Pinion Gear: 0.2Modulus, 1mm hole, 2mm thickness, 20T
- **6x Bearings** (ID: 1mm x OD:3mm x Thickness: 1mm) 681ZZ Miniature Mini Ball Bearings Metal Open Micro Bearing 1x3x1mm. AliExpress.com
  - 1x for right front knuckle
  - 1x for left front knuckle
  - 2x for mounting rear chassis
  - 2x for rear axel
- M1 Screws, washers & Nuts:
  - Servo lock screws: 2pcs M1 x 2.5mm screw
  - Top deck mounting: 4pcs M1 x 3mm screw
  - Rear chassis mounting to bearings: 1pc M1 x 6mm screw + 1pc M1 washer (add more if required to increase length to fit body)
  - Front Arm (Top) mounting to chassis: 2pcs M1 x 4mm screw
  - Front Wheel (per wheel): 1pcs M1 x 5mm screw + 1pc M1 washer between wheel and bearing + 1pcs M1 nuts.
- Magnets for body mounts:
  - **1x Front:** OD:3mm x Thickness:2mm, N35 Round Magnet 3x2 mm Neodymium Magnet Permanent. From AliExpress
  - **2x Back:** OD:3mm x Thickness:2mm, N35 Round Magnet 3x2 mm Neodymium Magnet Permanent. From AliExpress
  - **Spacer Magnets** (to increase height to fit taller car bodies and also to be mounted on car body): OD:3mm x Thickness:1mm, N35 Round Magnet 3x1 mm Neodymium Magnet Permanent. From AliExpress

### E. 3D Printer and recommended settings:

- Printer: Bamboo A1 mini
- Filament: PETG
- Nozzle: 0.2mm
- Layer height: 10mm or lower
- Infill: 50%
- Support: Normal / Snug / 45deg / support line width: 18
- Support Base Pattern: Hollow
- Support Interface Pattern: Rectilinear
- Others: "Inner Brim only" for printing tires.
- Print Sequence: by Object (not Layer)
- **Important!** Please note the Individual parts orientation on print bed. And print each part individually by "Object". Don't print all parts at the same time.



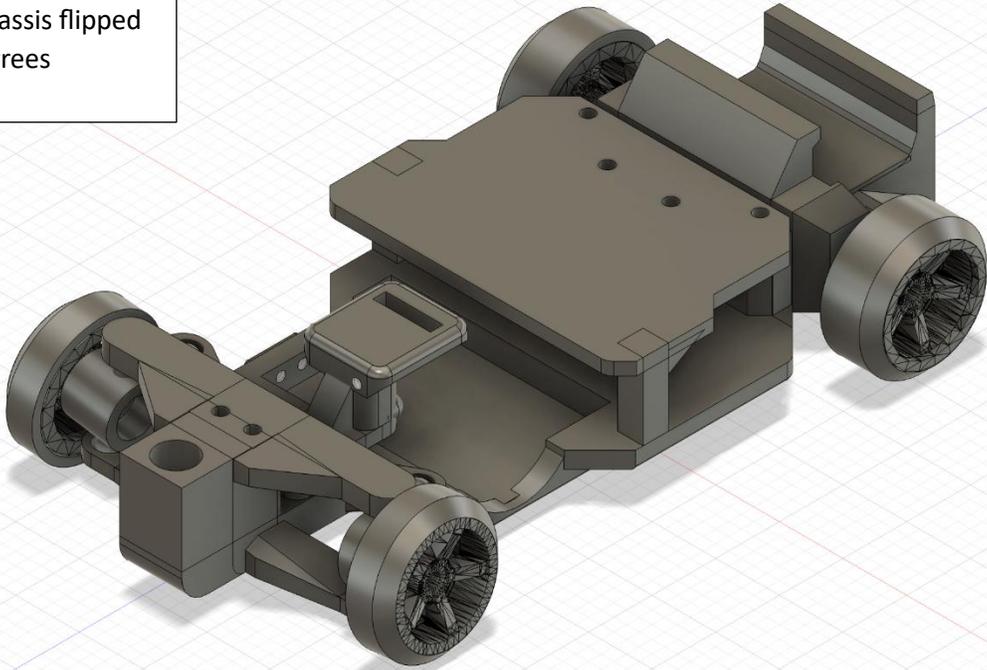
#### F. Assembly Tips:

- Ensure ball-joint's ball are as round and smooth as possible, use a small fine file to gently remove excess filaments and make them as round as possible.
- Use CA glue to glue the Spur gear and rear wheels to the rear drive axle. Be careful not to get CA glue on the bearings.
- Use another spur gear (same size and type) on the opposite side of the rear drive wheel as a spacer to achieve equal weight distribution and spacing with the main drive wheel.
- **Important!** Please use Silicon Oil on all ball joints. I'm using 300 Silicon shock oil.
- Printed parts with screw holes: Open-up the screw holes and Pre-screw all screw holes before assembly. I use a sharp tweezer to poke into the screw holes to open-up the screw holes, then screw in a 1mm screw, to ensure the screw hole thread is straight before assembling it to the chassis, as printed part's screw holes are usually smaller than the required M1 screws size.
- Ensure all parts are moving smoothly and easily, especially the steering linkages as the linear servo's torque is not strong enough. If the servo starts jamming, means there's binding &/or rubbing in the linkage and parts.

**G. Images for assembly reference:**

**Short wheel-base:**

Rear Chassis flipped  
180 degrees



**Long wheel-base  
(+5mm):**

Rear Chassis flipped  
180 degrees

