



# How to assembly FatBoy SS Mini Gear Drive

A small guide how to assembly the FatBoy SS Mini Gear Drive.

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 **TOOLS:**

- 3mm Hex Key (or Bit) (1)
- 2.5 mm Hex Key (1)
- 2mm Hex Key (1)
- 7mm Socket (1)
- Socket Wrench (1)
- Skateboard tool (1)

 **PARTS:**

- FatBoy SS Mini Gear Drive Kit (1)
- MOLYKOTE G-67 Grease (1)
- Blue Loctite (1)

## Step 1 — Assembly Hanger Mounting hub



- Install 4 x M3 grub screws to the hanger hub.
- *(i)* Don't forget to use Loctite on grub screw thread

## Step 2 — Attach hanger hub to the baseplate



- Install 4 x M2.5 bolts through the baseplate to hanger hub.
- *(i)* Don't forget to use Loctite on threads

## Step 3 — Mount the assembly on hanger



- Tighten grub screws to lock assembly in place.
- ⚠ Make sure the assemblies are parallel to the wheel.

## Step 4 — Shorten motor shaft for motor gear mounting



- Cut the motor axle to the 20mm length from the baseplate.
- ⚠ Make sure to cover motor, motor wholes and whole motor with something to prevent metal dust getting into the motor. **Magnets easily attracts metal particles inside and can cause shortening.**

## Step 5 — Install Key way



***(i)* Apply this step only if motor has keyway**

- Apply retaining compound like (Loctite 648) to keyway and install in the keyway

## Step 6 — If required attach stainless steel plate to the motor



***(i)* It is only useful when motor has open areas in the baseplate it minimize grease getting into the motor.**

- Attach stainless steel plate to the motor

## Step 7 — Install Motor Keyway to the motor axle



- Tighten M2 grub screws on motor gear to secure motor gear on axle.
- *(i)* Don't forget to use Loctite on grub screw thread

## Step 8 — Attach motor to baseplate



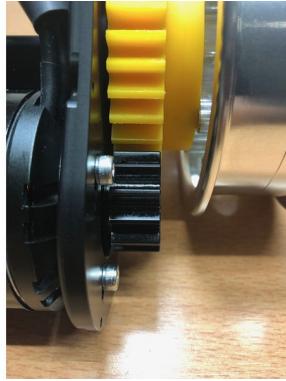
- Use 3xM3 bolts to attach motor to the baseplate
- *(i)* Don't forget to use Loctite on threads

## Step 9 — Attach wheel gear to wheel hub



- Attach wheel gear using 5xM3 bolts to wheel hub for meshing gears
- *(i)* This is only pre-fitment Loctite is not yet required.

## Step 10 — Prepare gears for meshing



**⚠** Baseplate should be parallel to the wheel otherwise wheels will mesh on angle and will cause negative effects.

- Add brass washer to axle before mounting wheel hub.
- Attach wheel hub to the hanger and lower down motor to prepare gear meshing.

**📌** Motor gear and Wheel gear should be always parallel to each in all wheel position. If gears not parallel and at angle it can cause negative effects and product more noise than necessary.

- Loosen up motor bolts so that motor gear would press wheel gear.
- Use sheet of paper to drive it through wheel gear and motor gear. Spin wheel to push paper through the gears
- After meshing is good tighten motor bolts

## Step 11 — Prepare final assembly



- Remove wheel gear from wheel hub
- Put wheel gear into the cover and attach V-ring on the wheel gear.
  - ⓘ Use some grease on v-ring to make it easier to slide on the cover.
- It is good time to apply grease to the gears
- Use 6xM2.5 bolts to attach motor cover to baseplate

## Step 12 — Attach Wheel Hub



- ⓘ Check that everything looks okay
- Put wheel hub on the axle again
- Use 5xM3 bolts to attach wheel hub back to wheel gear.
  - ⓘ Don't forget to use Loctite on threads

## Step 13 — Repeat same for other side



- Use same instructions for assembling another side

## Step 14 — Test spin



- Do a test spin on the bench to make sure everything is fine and sounds okay
- On the first test ride start by slowly accelerating and slowly braking to make sure everything is working fine.
- If there is some minor vibration happening at specific RPM it can be some misbalance in wheel/gears which should disappear after gears sit down in their place.

To disassembly gear drive, follow these instructions in reverse order.