

## RC4WD Internal Gear Reduction Unit (GRU) for Clod Installation Manual 1.0

### **Estimated Installation Time:**

It can take 3-5 hours to install 2 set of GRU

### **Tools that you have to have:**

- Hex Driver
- Pliers
- Hand Saw
- Clamp
- Electric Dremel (Rotary Tool)
- Protective Safety Glass

### **What's included in each GRU kit:**

- 1x Motor Plate
- 1x Gear Cover
- 1x 9T 32P Pinion Gear
- 1x 13T 32P Pinion Gear
- 1x 20T 32P Pinion Gear
- 3x Set Screws for Pinion Gear
- 1x Gear Shaft
- 1x Shaft Spacer
- 2x M3 6mm Hex Screw
- 2x M3 30mm Hex Screw
- 2x Washers
- 2x Flanged Ball Bearing

### **What need to be modified?**

- Clod Gear Case (Part # B9 & B10)
- 25mm Motor Spacer (BM5)

### **Important Message:**

Before you get started, make sure to wear safety glass at all time. In order to install the GRU, you must modify the clod plastic gear case. This is not a simple process and if you have not done custom modification work before, please send the product back for full refund.

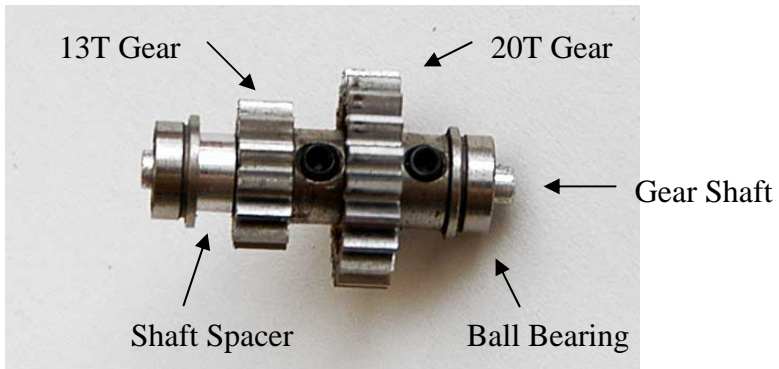
**Step 1:**

Install the motor plate with 2x M3 6mm hex screws:



**Step 2:**

Prepare the **gear shaft** setup just like below:



**Note:** you will notice the shaft can be very tight to install bearing and gears, this is normal, you will have to use some force to get it setup like above.

**Step 3:**

Carefully modified the gear case with a dremel:



**Note:** After you modified the gear case, make sure to clean it up well before you continue with the installation.

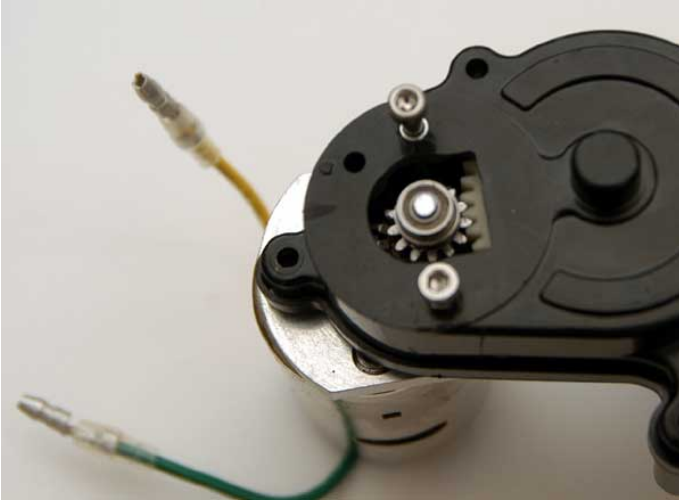
**Step 4:**

Shorten the 25mm Motor Spacer (BM5) to about 20mm long. When you mount it on a clamp, make sure insert a hex screw into the hole, so the spacer won't be deformed. After you finish cutting the motor spacer, make sure to test with a M3 hex screw that it goes in and out smoothly, if not open up the motor spacer a little bit bigger with a screw driver.



**Step 5:**

Put back the gear box together, test and make sure the gears line up correctly before you install the aluminum gear case cover.



**Note:** In the picture above, we installed two 30mm hex screw before we put on the gear case cover, that's because we were testing to make sure all gears are aligned correctly.

**This is how it should look like when you are done:**



**RC4WD Support Contact:**

Feel free to email us at [rcrock@gmail.com](mailto:rcrock@gmail.com)

Or call 408-425-6729 from 1-11PM Monday-Sunday (PST, California Time)