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Revision History

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1 OVERVIEW

The Smart Robot Servo is a metal-geread servo with the ability to replace the metal-gears if they become damaged during use. Damage to the gear set can occur if the servo receives a shock load to the system. This guide explains the process of removing and replacing the gears in the REV Smart Robot Servo (REV-41-1097) using the Replacement Gear Set (REV-41-1168).

1.1 TOOLS NEEDED

To replace the gear set in the Smart Robot Servo you will need the following items:

- Smart Robot Servo (REV-41-1097) – QTY 1
- Replacement Gear Set (REV-41-1168) – QTY 1
- Phillips Head Screwdriver (PH0) – QTY 1

REMINDER

The replacement gears are shipped un-greased. They need grease to run smoothly, so make sure there is enough grease in the gearbox, and if not, add equivalent of ~1/4” diameter sphere of grease to gears in the gearbox.
2 REPLACING GEAR SET

Step 1
Flip the servo over and remove the four screws that hold the upper casing.

Step 2
Remove the upper casing. Orient the servo so that the servo wire is to the left-hand side.

Step 3
Remove the center reduction gear.
Step 4

Remove the rightmost reduction gear.

Step 5

Remove the output gear with the spline.

Step 6

Remove the center axle from the driven gear.

Step 7

Remove the driven gear. Discard damaged gears, keep axle that was removed.
**Step 8**

Open the Replacement Gear Set Place the driven gear in the center.

**Step 9**

Fit the axle into the center gear. Press down to ensure the center driven gear is seated correctly.

**Step 10**

Fit the rightmost reduction gear onto the axle.

**Step 11**

Fit the output gear onto the output shaft. Make sure to align the slot in the gear with the tab on the servo.
### Step 12

Fit the center reduction gear onto the center axle.

### Step 13

Place the upper casing on to the servo. Then screw the casing back on.