



SERVO GEAR REPLACEMENT GUIDE

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Revision History		
Revision	Date	Description
1	07/11/2019	Initial Release

1 OVERVIEW

The Smart Robot Servo is a metal-g geared 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.