

BOM Gearbox

The gearbox features a modular design composed of various interchangeable parts. This document outlines essential components required for building a single gearbox module, as well as additional components for constructing expansion modules.

Essential internal components

The following table lists the critical internal components necessary for assembling a single gearbox module.

ID	Item	Material	Quantity	Link
1	Input Gear	PC+	1	
2	Planet Gear	PLA	4	
3	608 - ZZ Ball Bearing	Steel	4	608 - ZZ Deep Groove Ball Bearing
4	OutputHub	PLA	1	
5	6002-2RS Ball Bearing	Steel	1	6002-2RS Deep Groove Ball Bearing
6	685-2RS Ball Bearing	Steel	1	685-2RS Deep Groove Ball Bearing
7	Ring Gear	PLA	1	
8	Housing (See options)	PLA	1	
9	Faceplate	PLA	1	
10	M3 Screw (20-30mm)	Steel	5	
11	M3 HexNut	Steel	5	
12	M8 Screw (20-25mm)	Steel	4	
13	M8 HexNut	Steel	4	

Expansion components

The components listed below are necessary for building additional modules to expand the gearbox, allowing for greater gear ratios and torque based on specific project requirements.

ID	Item	Material	Quantity	Link
14	Sun Gear Carrier	PLA	1	
5	6002-2RS Ball Bearing	Steel	1	6002-2RS Deep Groove Ball Bearing
2	Planet Gear	PLA	4	
3	608 - ZZ Ball Bearing	Steel	4	608 - ZZ Deep Groove Ball Bearing
7	Ring Gear	PLA	1	
8	Housing (See options)	PLA	1	
10	M3 Screw (20-30mm)	Steel	5	
11	M3 HexNut	Steel	5	
12	M8 Screw (20-25mm)	Steel	4	
13	M8 HexNut	Steel	4	

Housing Options

Below are listed various housing designs available for the gearbox. All housings are 3D printed in PLA but feature different configurations based on mounting preferences, intended use (single or double gearbox configurations), and specific project needs.

Item