

**Be experts to invent robots, mechanical arms, robot cars with SERVO MOTOR from ETT**

Users can invent robots, mechanical arms, robot cars easily with SERVO MOTOR by themselves.

They don't design gear and in part of controller is used only 1 signal cable. There's range of Torque between 2.3 Kg-CM to 28.8 Kg-CM. SERVO MOTOR is DC MOTOR is consist of Gear set and controller in one Module. There's 1 signal cable, 2 VCC and GND only but it is able to control robot to turn left/right +90°/-90° (180°) by SERVO MOTOR without any sensor reflection. It is able to adapt in various project works easily.

- Be controlled SERVO MOTOR by input pulse into SERVO MOTOR and be direction and position of rotation
- Be able to use Power Supply DC 4-6 Volt, Rotation 180° and be able adapt SERVO MOTOR to rotate around as 360° for using with wheel of robot
- Port JR Type Standard
- There's 14 modes for distribution from GWS Co, Ltd., and FUTABA Co, Ltd. for S3003.



- ◆ **GWS MICRO/STD/JR** (A-MO-M-00007) It is small and light.
- ◆ **GWS S03N/STD/JR** (A-MO-M-00005) It is standard for using.
- ◆ **GWS S03N/STD/JR** (A-MO-A-00044) It is hi-speed but low S03N.
- ◆ **GWS S03T/STD/JR** (A-MO-A-00006) It is standard but high S03N.
- ◆ **GWS S03T/2BB/J** (A-MO-A-00073) It is the same size as S03T and Ball Bearings.
- ◆ **GWS S03T/2BBMG/J** (A-MO-A-00074) There's Ball Bearings and brass gearbox.
- ◆ **GWS S03TXF/STD/JR** (A-MO-A-00045) It is hi-speed but low S03T.
- ◆ **GWS S04/BBM/JR** (A-MO-A-00008) It is large with 13 Kg-CM.
- ◆ **GWS S666/STD/JR** (A-MO-A-00009) It is the largest with 15 Kg-CM.
- ◆ **GWS S677 2BB/MG** (A-MO-A-00116) There's Ball Bearings and brass gearbox with 26.50 Kg-CM.
- ◆ **GWS PICO/STD/JR** (A-MO-A-00023) It is the smallest with 5.4 g.
- ◆ **GWS MICRO/2BBMG/JR** (A-MO-A-00037) It is small and light with metal gear.
- ◆ **GWS S35/STD/JR** (A-MO-A-00111) It is to turn 360°
- ◆ **FUTABA S3003** (A-MO-Y-00025) It is a standard of FUTABA with 4.1 Kg-CM.



ET-ROBOTICS SERIAL

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Model	STD	BBM	Size ( L x W x H ) Mm/in	Weight		4.8V			6V			Modify 360°
				g	oz	SPEED (sec / 60°)	Torque		SPEED (sec / 60°)	Torque		
							Kg-cm	Oz-in		Kg-cm	Oz-in	
Micro	✓		28 x 14 x 29.8 1.1 x 0.55 x 1.17	18	0.63	0.16	1.8	25	0.13	2.30	32	✓
S03N	✓		39.5 x 20.0 x 35.6 1.56 x 0.79 x 1.40	41	1.44	0.23	2.40	47	0.18	4	56	✓
S03NXF	✓		39.5 x 20.0 x 35.6 1.56 x 0.79 x 1.40	41	1.45	0.15	2.20	31	0.12	2.45	34	✓
S03T	✓		39.5 x 20.0 x 39.6 1.56 x 0.79 x 1.56	46	1.62	0.33	7.20	100	0.27	8	111	✓
S03TXF	✓		39.5 x 20.0 x 39.6 1.56 x 0.79 x 1.56	46	1.62	0.21	5	69	0.17	6.20	86	✓
S04		✓	54.4 x 26.5 x 51.5 2.14 x 1.04 x 2.03	114	4	0.25	10	138.88	0.20	13	180.5	
S666	✓		63.0 x 32.0 x 61.6 2.48 x 1.26 x 2.43	142.4	5.02	0.28	13	181	0.22	15	208	✓
PICO	✓		22.8 x 9.5 x 15.5 0.90 x 0.37 x 0.61	5.40	0.19	0.12	0.70	10	0.09	0.84	12	✓
MICRO/ 2BBM		✓	28 x 14 x 29.8 1.1 x 0.55 x 1.17	18	0.63	0.16	1.80	25	0.13	2.30	32	✓
S35	✓		39.5 x 20.0 x 39.5 1.56 x 0.79 x 1.56	42	1.48	-	-	-	0.13	2.8	39.2	✓
S3003	✓		41 x 20 x 36 1.6 x 0.8 x 1.4	37.2	1.3	0.23	3.2	44	0.19	4.1	56.8	✓
S03T/ 2BB/J		✓	39.5 x 20.0 x 39.6 1.56 x 0.79 x 1.56	46.0	1.62	0.33	7.2	100	0.27	8	111	✓
S03T/2B BMG/J		✓	40.6 x 20.0 x 42.8 1.60 x 0.79 x 1.70	73	2.57	0.33	7.4	103	0.27	8.6	119	✓
S677 2BB/MG		✓	63.0 x 32.0 x 61.6 2.48 x 1.26 x 2.43	180	6.35	0.17	21.50	298	0.145	26.50	368	✓

- STD = Oiliness Bearing    2BB = 2 Ball Bearings    MG = Metal Gear With Ball Bearings    NMG = 2BBMG

**GEAR SET is a spare part of SERVO MOTOR GWS from ETT. Users can repair gear system inside SERVO MOTOR. There's 4 Gear Set;**

**1. GWS05/GS**

There's 4-Gearwheel in package.

- USE WITH SERVO MOTOR S03N/S03T/S03NXF/S03TXF (A-MO-M-00070)

**2. GWS04BBM/GS**

There's 4-Gearwheel and 1-iron Gearwheel in package.

- USE WITH SERVO MOTOR GWS S04BBM (A-MO-M-00071)

**3. GWS MICRO/GS**

There's 4-Gearwheel in package.

- USE WITH SERVO MOTOR GWS MICRO/STD (A-MO-M-00072)

**4. GWS 605/GS**

There's 4-Gearwheel in package.

- USE WITH SERVO MOTOR GWS S666/STD/JR (A-MO-M-00091)

