

MOTORS & MOTOR MOUNTS

ELECTRIC MOTORS			The same of the sa			3/2				1
SPECIFICATIONS / CODE		MOT12	MOT12W	MOTJ2	MOTJ2W	MOT17AM*	MOT22*	MOT22W*	MOT30*	GENDC
Operating range (Volts)		1.5 - 4.5		1.5 - 6.0		3.0 -12.0	1.5-4.5		4.5 - 6.0	1.5 - 9.0
No load current	RPM	15,500		6,700		11,800	9,000		13,600	2,600
	Amps	0.32		0.12		0.30	0.16		0.28	0.025
Under load at Max efficiency	RPM	11,900		4,450		9,350	7,350		11,350	2,100
	Amps	1.01		0.27		1.04	0.83		1.38	0.089
	Torque-g.cm	10.0		8.1		17.5	13.6		29.7	11.0
Testing Voltage		3.0V		3.0V		3.0V	3.0V		4.5V	6.0V
DIMENSIONS										
Body size (O.D.) / Across flat (mm)		20.0 / 15.0		20.0 / 15.0		23.8	24.0 / 18.3		30.0	32.0
Body length (mm)		25.0		25		26.9	26.9		24.0	20.0
Shaft dia. & length (mm)		2.0 / 7.7		2.0 / 7.7		2.0 / 6.9	2.0 / 6.3		2.0 / 9.5	2.0 / 11.0
Weight (grams)		17	20	17	20	28	28	31	41	43
Wire lengths (mm)		N/A	120mm	N/A	120mm	N/A	N/A	120mm	N/A	N/A
Price per pack of 5 (no. of packs)	1 - 4	\$12.24	\$13.08	\$12.24	\$13.08	\$13.25	\$13.08	\$13.88	\$20.24	\$19.24
	5 - 10	\$12.10	\$12.94	\$12.10	\$12.94	\$13.08	\$12.94	\$13.80	\$18.89	\$17.67
	11 - 20	\$11.95	\$12.78	\$11.95	\$12.80	\$12.94	\$12.80	\$13.63	\$17.67	\$16.74
	21+	\$11.88	\$12.62	\$11.80	\$12.62	\$12.78	\$12.62	\$13.47	\$16.38	\$16.07

*Two screws are supplied with these motors.

Colours of the motor ends may differ from photos above.

Photos not to scale.

NOTE: If you are interested in matching our motors to solar panels, contact us to find out which combinations we use in our kits.

PLATE - MOTOR MOUNT Code: MMPLHP Motor mount plate ideal for motors: MOT17, MOT22 and MOT30. Pack of 5. \$3.75

ELECTRIC MOTOR MOUNT CLIP FOR GENERATOR (GENDC)



Code: EMCL-GEN

This consists of a clip with self-adhesive tape on the bottom, with a wide cable tie to clamp and hold the GENERATOR (GENDC) or other large items.

Pack of 5.

(GENDC sold separately. Colour of cable tie may vary). \$2.75

ELECTRIC MOTOR MOUNTING CLIP



Code: EMCL
Self-adhesive clip.
Securely holds MOT12 to MOT30
motors.
Pack of 5.

\$8.55 (1 - 4 packs) \$7.40 (5 - 19 packs) \$7.25 (20+ packs)



MOTORS & MOTOR MOUNTS

MOTOR MOUNT KIT



BUGGY MOTOR MOUNT KIT (FOR TT MOTOR)

Code: BUGMOTMNT

This mounting bracket is specifically designed to hold the yellow buggy motors (TT Geared Motor) (code: BUGMOT). Each bracket comes with four bolts and two nuts for installation.

Material: Rigid aluminum alloy

Length: 22.5mm Width: 15.5mm Thickness: 5mm

Mount hole dimensions: 3mm Bolts: 3 x 30mm and 3 x 8mm

\$2.28



ELECTRIC MOTORS (more powerful)

Essential for both Model Solar Car & Model Solar Boat challenges.**								
MODEL		ST-403-T1	FAULHABER 2232					
CODE		SM403	SMFAU					
DIMENSIONS & PERFORMANCE								
Efficiency		67%	87%					
Operating range (Volts)		6.0V	Nominal 6.0V					
No load	RPM	9,000	7,100					
No loau	Amps	0.17	1.83					
	RPM	7,790	6,600					
Under load at Maximum efficiency	Amps	1.1						
	Torque	51 g-cm						
Testing voltage		6.0V	6.0V					
Body O.D. / length (mm)		32.0 / 29.0	22.0 /32.2					
Shaft diameter & length (mm)		2.0 /8.5	2.0 / 6.0					
Weight (grams)		76.5	62					
Price		\$9.50	\$127.28					

^{**}Always check your State's current Solar Challenge Regulations to ensure you comply.

FAULHABER MOTOR MOUNTING KITS



FAULHABER MOTOR MOUNTING KIT

Code: FAUMMK

The FAULHABER MOUNTING KIT is used to attach the motor mounting bracket and the motor to one Carbon fibre tube. This kit provides the parts (brackets, screws, nuts and bolts) to assemble an adjustable mount for a Faulhaber 2232 motor.

This mounting system provides adjustment to allow a number of different pinion gears to be used for best performance, as sun levels change during the competition.

\$6.71



FAULHABER & MOUNTING KIT

Code: FAUMOTK

The FAULHABER MOTOR AND MOUNTING KIT consists of:

- -1x FAULHABER MOUNTING KIT (FAUMMK)
- -1x Faulhaber 2232 Electric motor (SMFAU)

\$130.00

SM403 MOTOR MOUNTING KITS



SM403 MOTOR MOUNTING KIT

Code: SM403MMK

The SM403 MOUNTING KIT is used to attach the motor mounting bracket and the motor to one Carbon fibre tube. This kit provides the parts (brackets, screws, nuts and bolts) to assemble a SM403 motor to a chassis. Adjustment is by moving the motor up or down, allowing different gears to be used.

\$6.98



SM403 MOTOR AND MOUNTING KIT

Code: SM403MOTK

The SM403 MOTOR AND MOUNTING KIT consists of:

- 1 X SM403 MOTOR MOUNTING KIT
- 1 X ST-403 T1 Electric Motor

\$15.70



MOTOR MOUNT - ADJUSTABLE - SM403

Code: MMPL403

Adjustable motor mount plate for solar motor SM403.

\$1.70

SERVO MOTORS



SERVO MOTOR MG995-180 DEGREES

Code: SERVO995-180

Operating Speed: 0.17sec/60 degrees

(4.8V no load)

Operating Speed: 0.13sec/60 degrees

(6.0V no load)

Stall Torque: 9kg-cm (180.5 oz.-in) at

4.8V

Stall Torque: 12kg-cm (208.3 oz.-in) at

6V

Operation Voltage: 4.8 - 7.2Volts

180 degrees operation

Dimension: 40mm x 19mm x 43mm

Weight: 55g \$19.78



SERVO MOTOR SG90

Code: SERVOSG90

This 9g micro servo can rotate 180 degree (90 degrees in either

direction).

Includes servo horns and mounting screws

\$5.28



MOTORS & MOTOR MOUNTS

MOTOR TO SUIT BUGGY 2WD ROBOT & ROBOT BUGGY

BUGGY MOTOR

Code: BUGMOT
Yellow motor with 2 flats shafts;
Operating voltage 3-12VDC;
Gear Ratio 1:48;
Load current 70mA;
L=65mm, W=37mm, H=22mm
\$5.34 (1 - 99)
\$4.34 (100+)



BUGGY WHEEL & MOTOR Code: BUGWANDM

Yellow motor (BUGMOT) (specs. as left)

Yellow plastic wheel: D=68mm, W=30mm \$7.70 (1 - 99) \$6.85 (100+)



We also have catalogues for **Technology Kits & Components**, **Solar and Solar Challenge**, **Tools**, **Physics**, **Clocks & Pens**, which can be downloaded from our website.

We are progressively adding more items to our online catalogues and information. Please have a look - we would appreciate feedback on what else you would like to see. Thank you for your continuing support.

