

ASSEMBLY INSTRUCTIONS

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TYRANNOMECH

Mechanical Motorized
Wooden Kit
Model MWK-01

This is a creative and fun kit for you build and learn about how motors and gears work together. **Don't push any of the cut pieces out until the instructions say to do so.** It's a good idea to sand the jagged edges of the wooden pieces before assembling them together (sand paper is included in this kit). If the wooden pieces

don't fit together tightly, then try gluing them together (glue not included). Follow the instructions closely, and in about three (3) hours time, you will have

an interesting, motorized Tyrannomech Dinosaur that you can paint or stain! Recommended for ages 10 and up (**adult supervision recommended**).

PARTS LIST	Gearbox		Motor DC 3V		Battery Holder		Slide Switch with Wire		Metal Shaft		Pinion Gear 8T		Face Gear 36T/10T (white)		Gear 40T/0T (white)		Gear 40T/10T (red)		Gear 40T/10T (green)		Wire w/ Terminal		Wire w/ Terminal		Metal Foot		Nylon Connector		
	1 pc.	1 pc.	1 pc.	1 pc.	2 pcs. (9/32")	2 pcs.	1 pc.	1 pc.	1 pc. (5/64" x 1 37/64")	1 pc. (1/8" x 2 3/64")	1 pc.	1 pc.	1 pc.	1 pc.	1 pc.	1 pc.	1 pc.	1 pc.	1 pc.	1 pc.	1 pc.	1 pc.	1 pc.	1 pc.	2 pcs. ("T" shape)	2 pcs. ("L" shape)			
	MWK-01-P1	MWK-01-P2	MWK-01-P3	MWK-01-P4	MWK-01-P5	MWK-01-P6	MWK-01-P7	MWK-01-P8	MWK-01-P9	MWK-01-P10	MWK-01-P11	MWK-01-P12	MWK-01-P13	MWK-01-P14	MWK-01-P15	MWK-01-P16	MWK-01-P17	MWK-01-P18	MWK-01-P19	MWK-01-P20	MWK-01-P21	MWK-01-P22	MWK-01-P23	MWK-01-P24	MWK-01-P25	MWK-01-P26	MWK-01-P27	MWK-01-P28	MWK-01-P29
	Nylon Pad 2 pcs. (7/32" x 3/16" x 5/64")	Nylon Post 4 pcs. (height: 15/64")	Wire 2 pcs. (9/32")	Nut M3 2 pc.	Self-tapping Screw 26 pcs. (5/64" x 5/32")	Self-tapping Screw 4 pcs. (3/32" x 5/8")	Screw 2 pcs. (1/8" x 5/8")	Washer 6 pcs. (1/8" x 25/64" x 1/64")	PVC Tube 3 pcs. (19/32")	Nylon Pad 6 pcs. (Diameter: 5/16")	Fixing Plate 6 pcs. (L-shape)	Nylon Post 4 pcs. (Height: 1/8")	Sandpaper 1 pc.	Paint & Paint Brush Set Assorted Colors															
	Non-toxic, water-based. Conforms to EN71 & ASTM D-4236																												

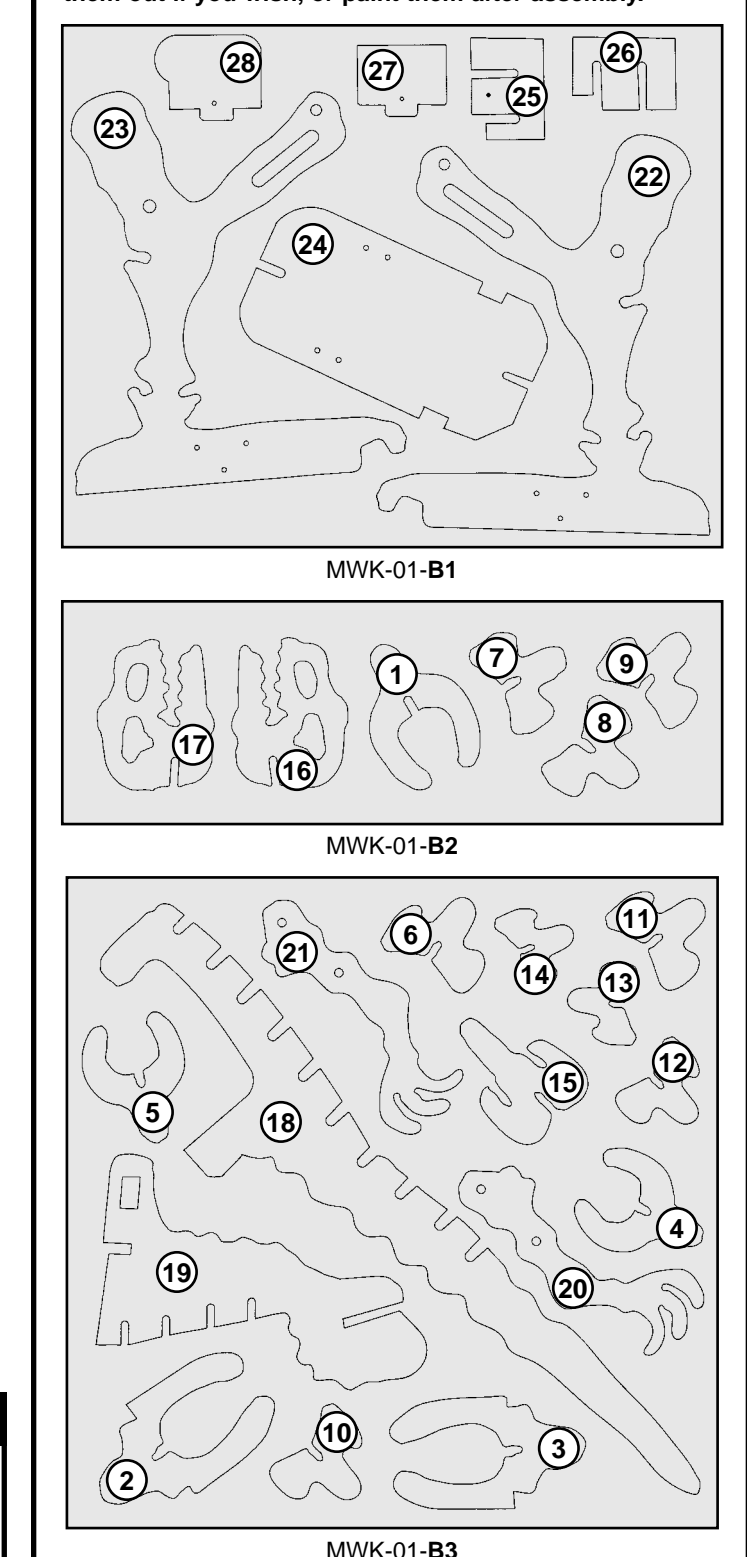
TOOLS YOU WILL NEED

- Long Nose Pliers or Tweezers
- Batteries (2 "AA")
- Small Phillips Screwdriver (Magnetized head is recommended)

Note: If you do not have magnetized screwdriver, then you can put a dab of Vaseline on the screw head to hold to the screwdriver.

PRE-PUNCHED BOARDS

You may paint the pieces on the boards before punching them out if you wish, or paint them after assembly.



1

- Gears P9, P10, P11, and P8 should be at the left-hand side of the pinion gear (P7).
- Put one "L"-shaped nylon connector (P15) downward and the other upwards as shown.
- Insert the motor in the direction shown.

Note: The side with a lip should be towards the metal case.

Note: Gears must interlock as shown. Pads P16 must be fully pushed on or gears will slip.

Quick Test: Turning one gear by hand should smoothly turn the other gears without any slipping. Make necessary adjustments as needed.

2

Note: Screw the two brackets (P26) close to the edge of pieces 27 & 28 to avoid crossover with the gearbox.

Line these edges up

3

Note: Don't screw P21 & P22 too tight. Keep the legs loose so the Tyrannomech can walk more smoothly.

4

Note: Install the two (2) "AA" batteries before installing board 18.

Note: Use one "L"-shaped bracket (P26) to connect boards 18 and 24.

5

- Screw the switch (P4) onto board 19.
- Insert board 19 into board 24.

6 Wiring Diagram

- Slide tubing onto wire.
- Twist wires together.
- Slide tubing over twisted wires.
- Slide tubing over twisted wires.

Note: Slide the PVC tube (P24) on one wire before twisting the two wires together, then slide the tubing over the joint as shown.

Quick Test: Turn on, make sure that the gears turn smoothly and the legs move smoothly. Make necessary adjustments as needed.

7

Note: Screw the "L"-shaped brackets to boards 25 & 26 first, and then install them onto board 2.

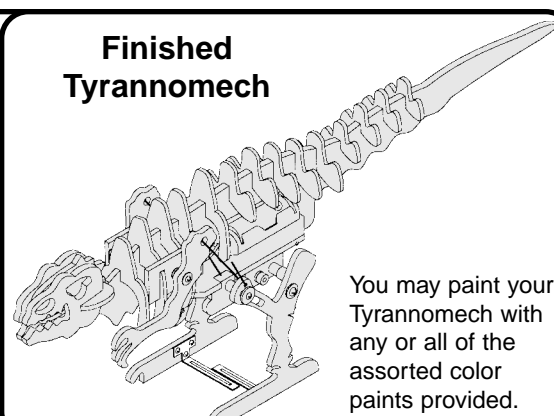
Note: The screws on the arms (boards 20 & 21) should be loose to ensure that the arms move smoothly.

8

- Install an "L"-shaped bracket (P26) to connect boards 19 & 24 as shown.
- Insert the arms assembly to board 19 and bend the wires (P18) to connect its arms and legs. Use the picture of the completed unit on the box as a guide.

9

- Insert all of the boards into the position shown.



TROUBLESHOOTING

Figure 1

If you find that the Tyrannomech does not walk smoothly and falls on its head, then try moving the two metal plates (P14) forward as shown.

Figure 2

If you find that the Tyrannomech keeps turning left, then slightly bend its right side metal plate as shown in Figure 2. If it keeps turning right, then do the same on the left side.

Figure 3

- Make sure that all of the wiring is correct.
 - If the motor is running, but the Tyrannomech does not walk, then adjust the screws on its arms/legs so that they are not too tight and not too loose.
 - Check if the "T"-shaped metal foot is horizontal and touching the ground completely.
 - Make sure that the two "L"-shaped nylon connectors (P15) are in opposite directions (refer to step 1).
- If you need additional assistance, contact Elenco™.

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