#### **MAGNET MOTOR ASSEMBLY INSTRUCTIONS**



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# **INSTRUCTIONS**

Each step in the assembly of your magnet motor is identified with a number and letter.

Please be sure to assembly in the order the steps are provided.

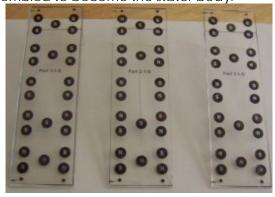
Included Parts List		Quantity	Used for.
Plastic stator strips. Marked 1-2-3-/1-S	10in. L x 3in. W x ¼ in.	(3)	Part 1-S is used for stator body.
Tube Super glue.	Net WT 0.07 OZ (2g)	(1)	Glue used for attaching magnets on strips 1-S
Neodymium magnets. Ceramic magnets Each magnet is marked with N-S poles respective.	34in. X 1/8 in. Zinc coated 1/2 X 3/16 Ceramic	(82)	(24) magnets each attach to parts 1-S Remaining (10) magnets attach to 1-R
Freewheel radial bearing.	5/8 in. inside diameter bearing	(1)	Attached to plywood or similar base of unit. (Not Included)
Dowel Shaft. Marked 1-DS	1 ½ in. X 5/8 in.	(1)	Attaches to bearing and rotor, and used as rotor shaft.
Aluminum strip. Marked 1-A	1 ½ in. X 15in. 16 gauge	(1)	Soldered to bottom of bearing and run to edge of base as lead.
Copper wire.	65 inches 16 gauge	(1)	Coiled around body of stator.
Wire tie connectors	4 inch, Plastic Wire Ties	(6)	Used to fasten stator body pieces.
Rectifier Diode.	Rated 6 amps	(1)	Soldered to copper wire lead out.
Plastic rotor blade. Marked 1-R	4L x 1 ½ in. W x ¼ in.	(1)	Used as rotor blade.

# MAGNET MOTOR ASSEMBLY INSTRUCTIONS STEP 1

Each step in the assembly of your magnet motor is identified with a number and letter.

This magnet motor can be built in under 45 minutes if you simply follow the easy instructions in the order they are presented.

Your first step is to gather together parts marked 1-1-S, 2-1-S, and 3-1-S These are the plastic 10 inch by 3 inch strips that are pre-drilled at the 3 inch end. These 3 strips will be assembled to become the stator body.



Now that you have these 3 strips gathered you will continue to step two.

#### STEP 2

The next 3 pages are templates, which are designed for you to place each of the marked plastic strips over to guide you in the correct placement of your Neodymium ring magnets.

Your zinc coated Neodymium ring magnets are marked with a (N) (S) sticker to represent there respective poles.

#### Lets get started.

Place plastic strip part marked 1-1-S over template marked 1-1-S Adjust strip so pre-drilled holes are aligned with black marks on template 3 inch end, and even with all edges.

Now gather 24 of your included Neodymium ring magnets and your tube of super glue. Use caution when opening super glue tube. Point away from face when puncturing tip of tube.

### Continue to templates.

#### **STEP 2 CONTINUED**



Now let's start placing magnets in the order shown on the template.

Only glue 1 pole at a time so the magnets are not attracted to or repelled from each other.

Place a small dab of super glue on the plastic over the 5 (N) spots on the left side of the template. Then carefully place a magnet with the (N) mark up on template spot over the dab of glue.

Next, repeat the same steps for the 2 (N) poles in the center of strip and then the 5 (N) poles on the right side of template. Set this strip aside to dry while you complete the next 2 strips.

Now that your first strip north poles are complete repeat these steps for parts 2-1-S and 3-1-S. Allow strips to dry at least 5 minutes before attaching (S) pole magnets. This will prevent N pole magnets from forcing south poles off strip.

#### **INSTRUCTIONS STEP 3**

Just in case you overlooked it, in step 2 we instructed you to allow the (N) pole affixed magnets to dry at least 5 minutes before affixing the (S) pole magnets.

If you do not allow dry time then magnets will start to become unglued from strip when opposite pole is affixed.

If 5 minutes has lapsed lets proceed to attaching the (S) pole magnets.

Because of the strength of the Neodymium ring magnets, this next step is different from the previous step, because you will need to place each (S) pole magnet 1 at a time and allow to dry 30 seconds while holding in place with finger.

Once the first south pole is dry, proceed to the next, and repeat for remaining on the next 2 strips.

Below picture is how strips should appear when finished.



Note: Be sure are poles that are marked (N) or (S) are placed up respective of their poles.

If all magnets are affixed to strips, and were allowed to dry then proceed.

To save yourself from problems running the motor you should now double check that all of your magnets poles were correctly placed according to the templates. If you have made a mistake in placing a pole in an incorrect position then now is the time to correct it.

#### **CONTINUE TO NEXT PAGE**

#### **INSTRUCTIONS STEP 4**

This next step requires your device base (Not Included with kit) This is your 12x12 inch or larger plywood board or other sturdy dielectric base, this base does not need to be square but should have a 12X12 working area.

In this step you will need to find the center of your board. Now draw a 1 and ½ inch path down center of board as shown below.







Bearing shown top face up.

Next draw a 1 and 1 and ½ inch circle in center on aluminum. Now place a small amount of glue on bottom of bearing (narrow side) and affix to center as pictured in right hand picture.

### Continue to next step.

# MAGNET MOTOR ASSEMBLY INSTRUCTIONS STEP 5

Now that all strips part 1-1-S, 2-1-S and 3-1-S are correctly assembled you will now secure them with the wire ties that are included with your kit as pictured below.

Magnets should be on outside of stator body.





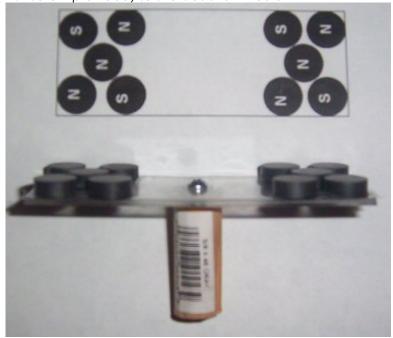


**CONTINUE TO NEXT STEP** 

# MAGNET MOTOR ASSEMBLY INSTRUCTIONS STEP 6

In this step attach the (10) Ceramic magnets from the template provided as you did for the stator body. This is the rotor blade template.

When the magnets are attached and glue is dry you will then attach rotor blade to wood dowel (with screw provided) to shaft as shown below.



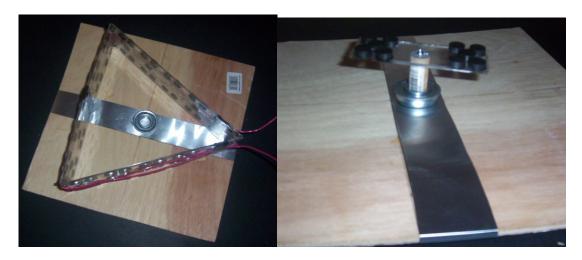
Magnet placement shown in picture is correct placement.

# CONTINUE TO NEXT STEP

### **INSTRUCTIONS STEP 7**

In this step you will take the supplied copper wire and coil around outside of body as pictured. Use black tape to hold in place in a few areas.

On one lead out solder diode lead out.





# CONTINUE TO NEXT STEP

#### **INSTRUCTIONS FINAL STEP**

Now that you have all the parts complete, the final step is to run the motor. First set aside stator body. Now place rotor shaft into bearing. Now carefully center body of stator over and around shaft. Rotor will start to spin. If rotor is spinning slowly adjust the centering of the stator body until rotor spins faster.

To stop rotor from spinning simply set stator body off center or lift off base. Use caution with leads when working near stator body as you may receive a severe shock if touched.

If you need any help with running the motor please send an email to <a href="mailto:priority@mxlo.com">priority@mxlo.com</a>

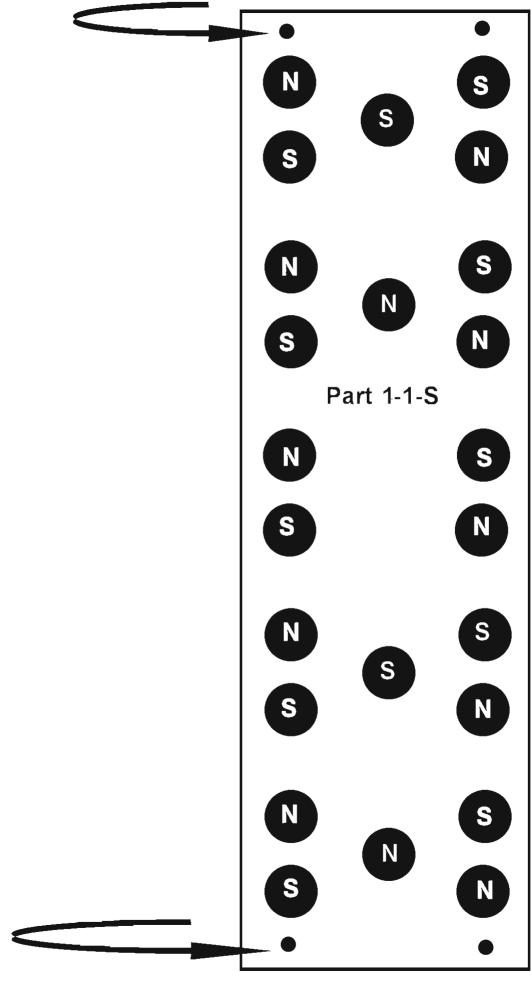
Please note:

We cannot offer any support as to inverting this power or stepping it up. We suggest that you consult a professional in the electric field if you do not have the working knowledge of electricity.

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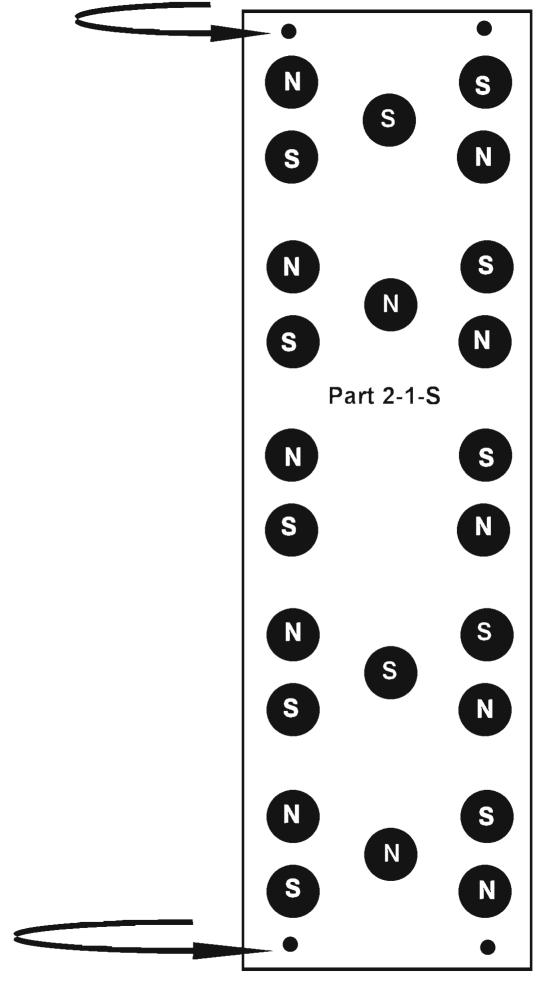
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Pre-drilled screw holes. 1/4 Inch



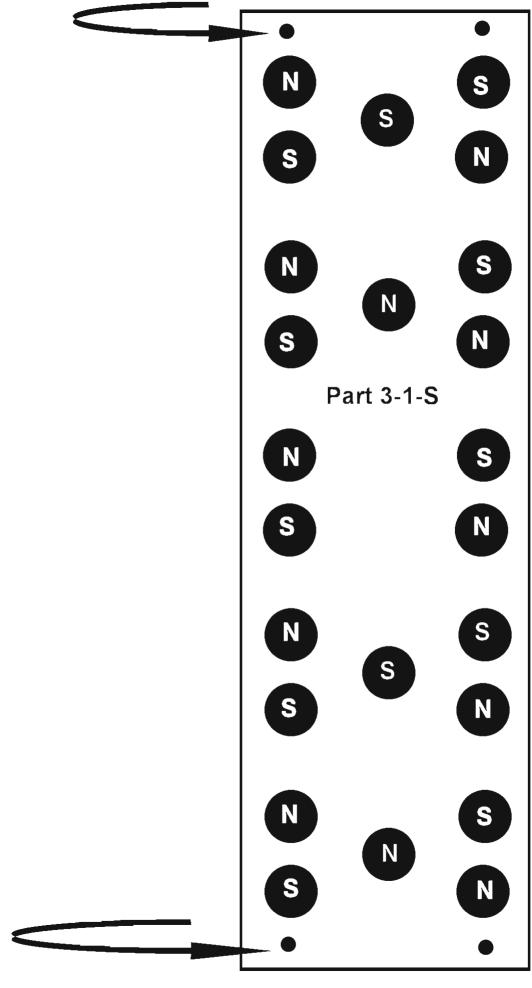
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