



Build a test a rectifier

Test a small DC motor with an AC Transformer

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Items needed:

- 1 Electronic Capacitor Radio Shack # 272-1019 \$1.69
- 1 Bridge Rectifier - Radio Shack # 276-1146 \$1.99
- 1 foot #18 red wire (Scrap)
- 1 foot #18 black wire (Scrap)
- 2 feet of #18 any other color wire (Scrap)
- 2 inches of 1/16 heat shrink tubing or liquid tape
- 4 inches of 3/16 heat shrink tubing or liquid tape
- 2 Inches of 1-1/2 heat shrink tubing or Electricians tape.
- Small needle nose pliers
- Small wire cutter
- Wire stripper
- Soldering pencil
- Solder
- Heat Gun
- or some form of heat to shrink tubing
- AC Transformer



Assemble the parts:

Take the 2 1/16 by 1 inch heat shrink tubing and place over the 2 leads from the Capacitor

Then bend the wire so the tubing will not fall off

Notice the capacitor has an indented ring around it. This is the positive side.

Wrap the positive wire from Capacitor to the positive lead of the rectifier and solder together.

Wrap the negative wire from Capacitor to the negative lead of the rectifier and solder together.

See photo #2

Strip about 3/16 inch of insulation off of the Red wire.

Solder the red wire to the positive lead on the rectifier.

Strip about 3/16 inch of insulation off of the Black wire.

Solder the Black wire to the negative lead on the rectifier.

Strip about 3/16 inch of insulation off of the third color wires. I happen to use orange.

Solder the third color wires to the two center leads on the rectifier.

See Photo 3

Slide the 4 1/16 inch heat shrink tubes all the way up an over the 4 leads of the rectifier.

Take a heat producing item such as a heat gun to remove paint or a match will do.

Be carefull with a match as you can burn the wire or insulation off.

(If no shrink tubing cover all exposed leads with a liquid tape or electric plastic tape.)

Take the large 1-1/2 inch tubing and slide up and over the Rectifier and Capicator.

Take a heat producing item such as a heat gun to remove paint or a match will do.

Be carefull with a match as you can burn the wire or insulation off.

You can use electric tape for this with no problems.

Strip about 1/2 inch off of the four wires.

The control is now ready.

Attach the 2 other colored wires to the AC transformaer.

Turn the transformer up just slightly. Lowest output seems to be about 7 to 10 volts.

Holding the red wire and black wire to the two DC motor leads. Motor will run.

Reverse the wires and depending on the DC motor the motor will run in the opposite direction.

DRESS UP THE FOUR LEADS

Attach 2 Terminal connectors to the AC leads

Attach 2 aligator clips to the 2 DC Leads

I had a number of extra test leads that I was not using and used them for my DC leads.

One Black and One Red, but be sure that you put the heat shrink tubing on first befor soldering.

Slide the shrink tubing into place after soldering and heat to shrink

