Building a Bike Generator

WIND FOR SCHOOLS
BIKE GENERATOR PROGRAM
2013

First, gather your materials:

- Bike
- Bike stand
- 24VDC Permanent Magnet Motor
- Super strut (also called Uni strut) – 10 ft.
- V-Belt (~94”)
- 2.5 inch V-Belt Pulley w/0.5” bore
- Shaft Adapter - (3/8”x1/2” bushing)

Other parts:

- Miscellaneous Connectors
- Short Extension Cord
- Watt Meter (optional – to measure watts you are producing)
- Polarized Power Connector – connects bike to the watt meter

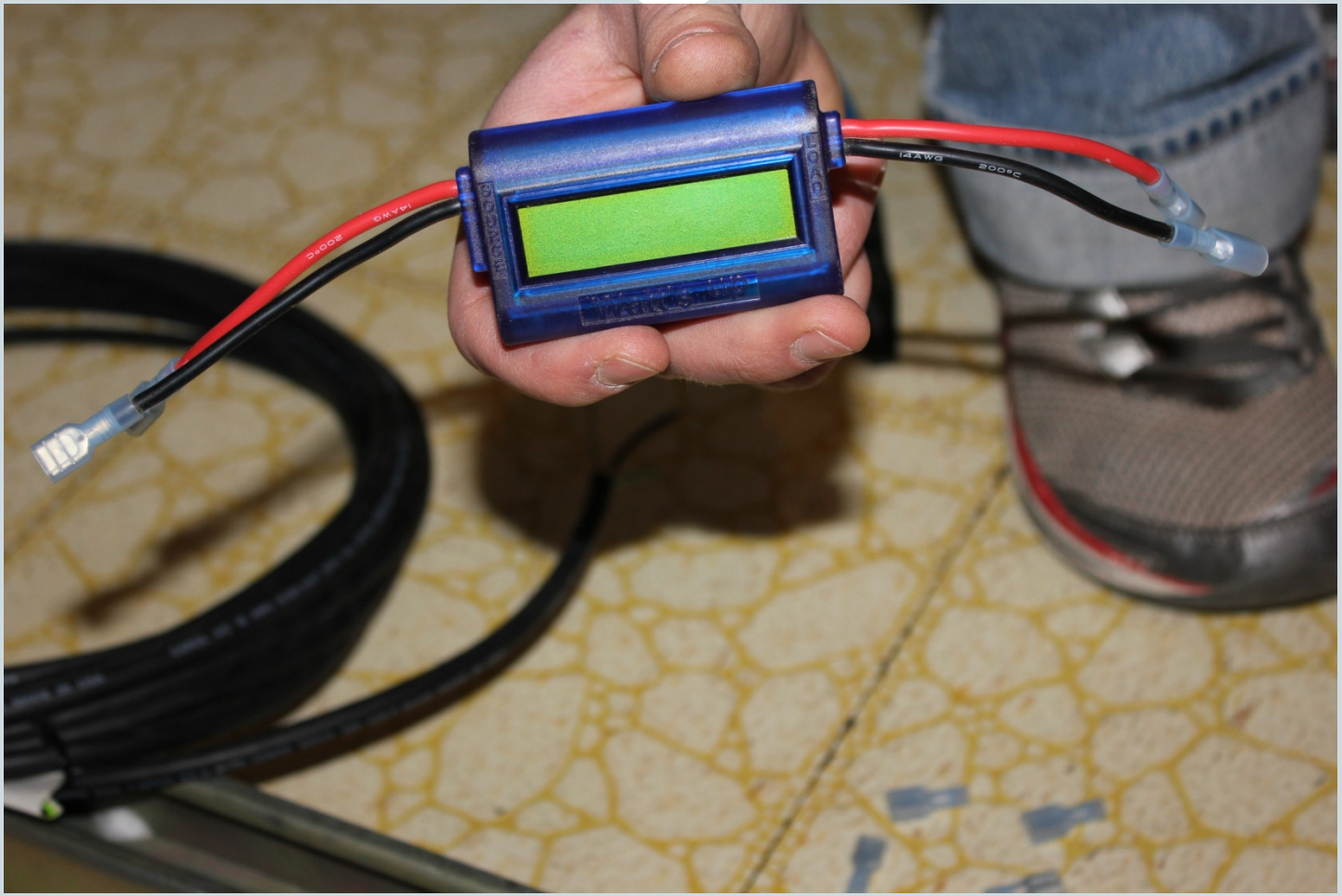
Motor


Model: MY1016
Voltage:24VDC
Rated speed:2650RPM
Rated current:19.2A
Output:350W
UNITE MOTOR CO., LTD

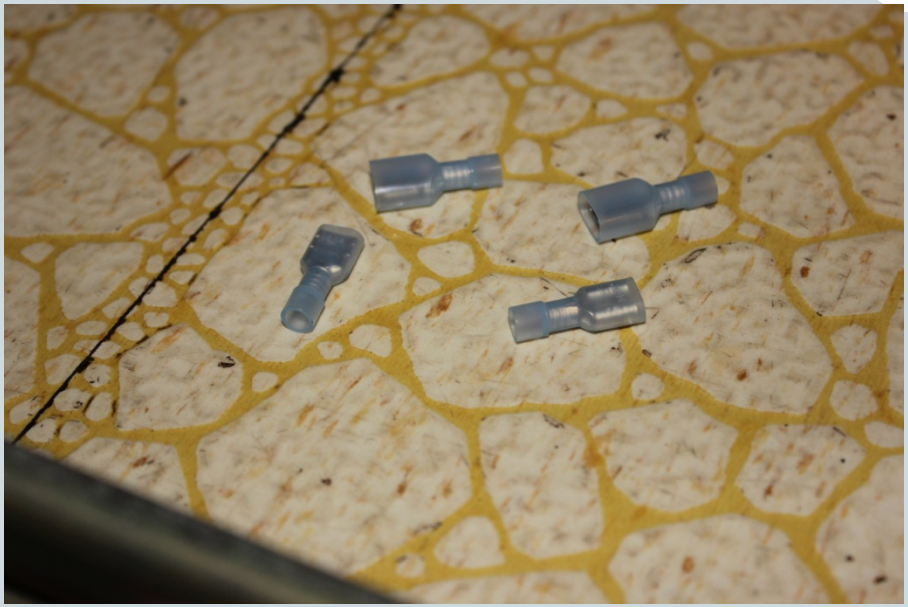
Super strut

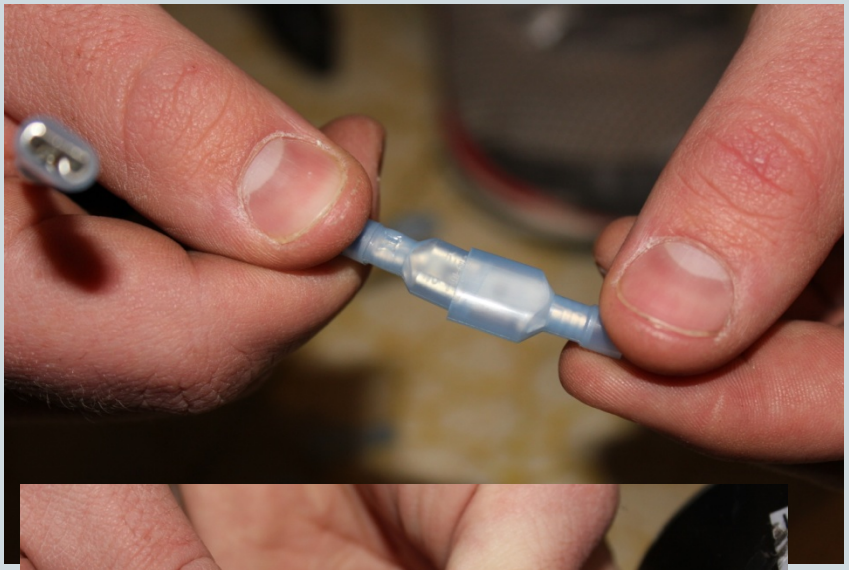
- Remove the stop from your bike trainer and attach the super strut.
- Each trainer is different.
- Remove the block rubber stop.
- Bolt the super strut to the trainer.

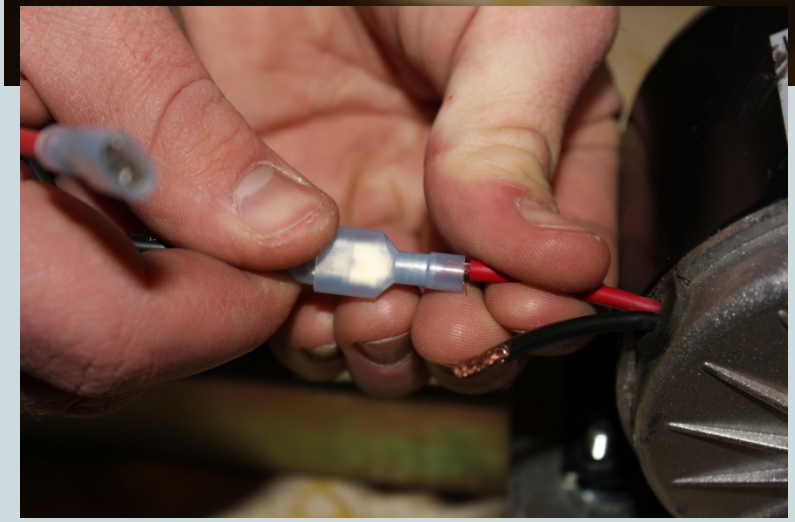
Watt meter (optional)



Connectors

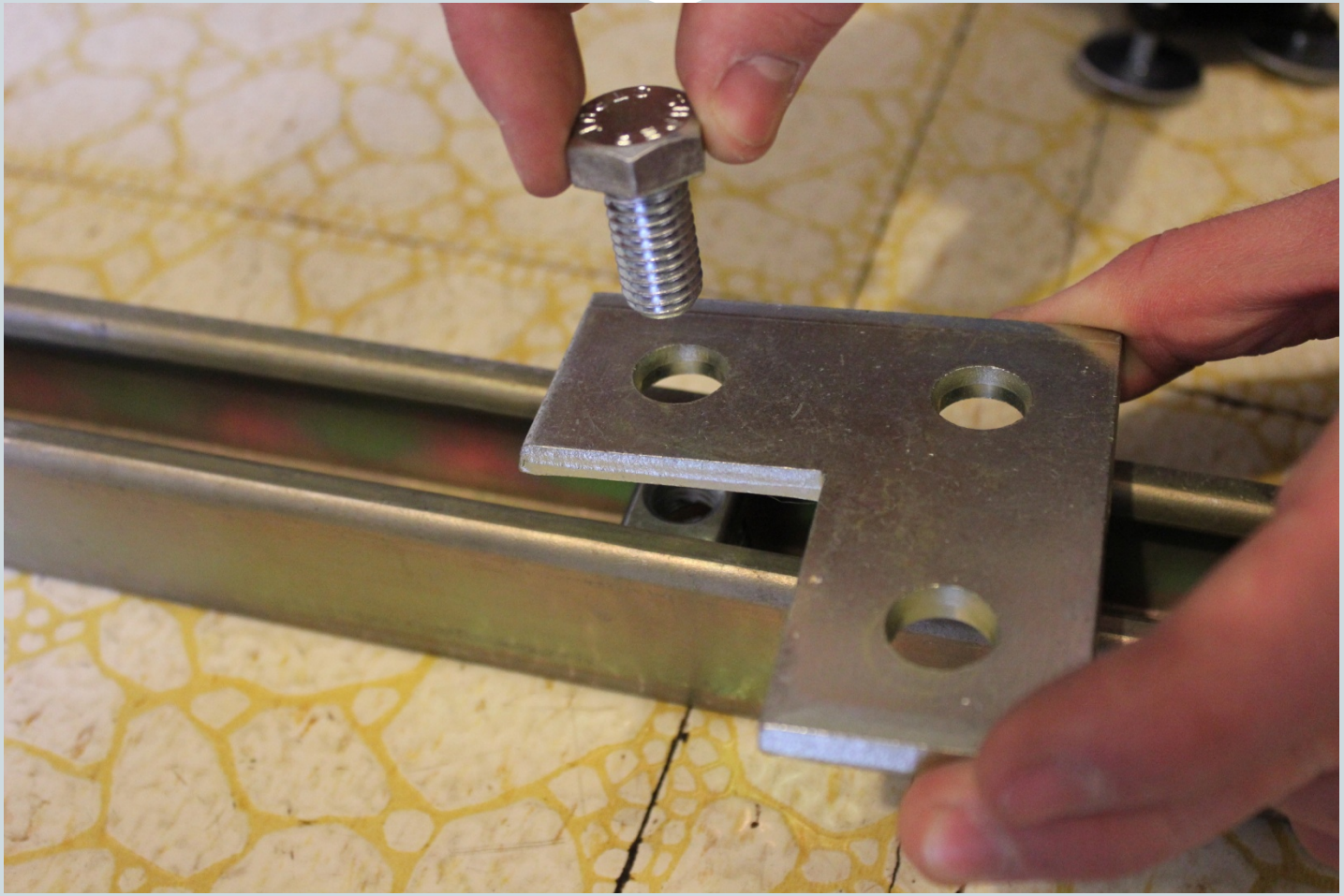




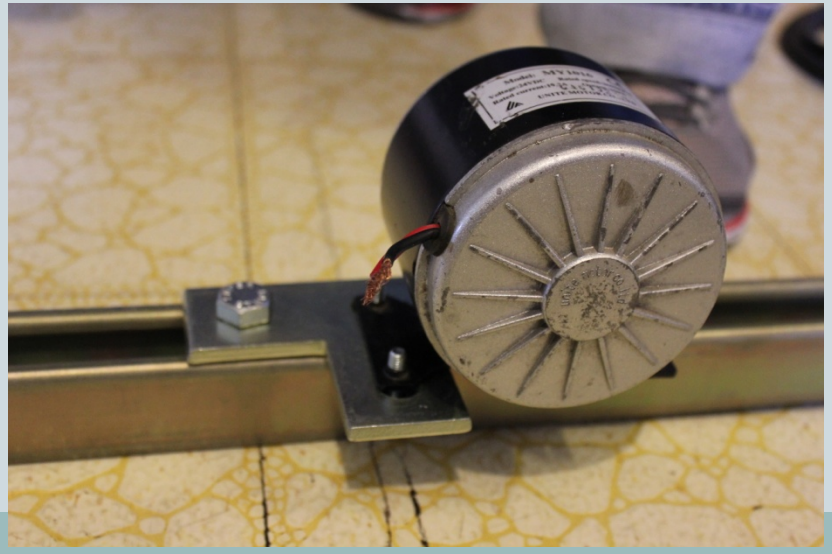


Super strut nut

L bracket and bolt

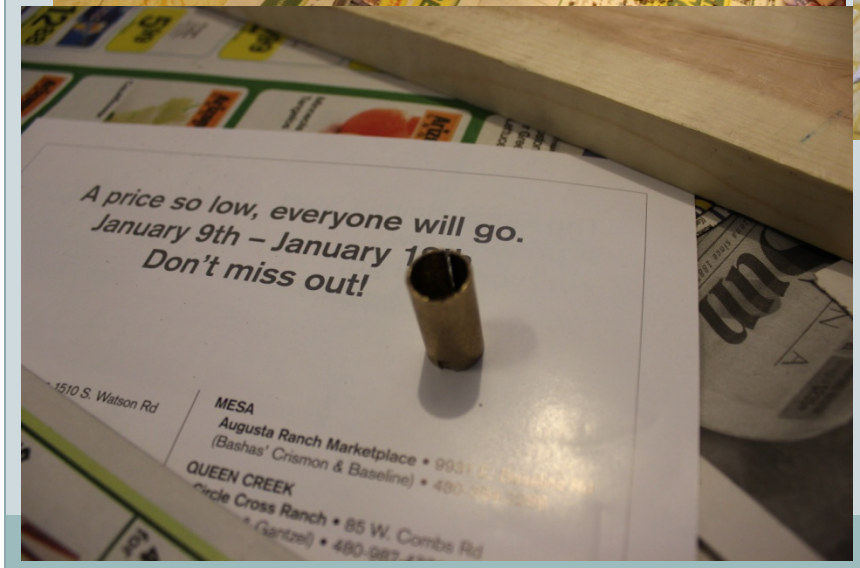


Attach the motor to the L bracket



Drill the connector bushing

Cut the connector bushing

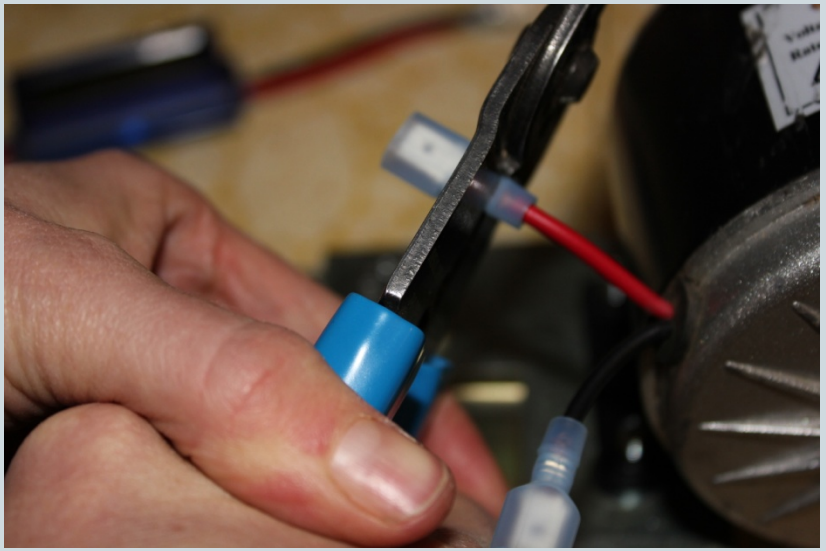


Put bushing inside v-belt pulley; tighten with the Allen wrench, attach to motor

Adjust motor so that it is close enough to the bike that the v-belt will fit around the rear bike wheel and the belt pulley.

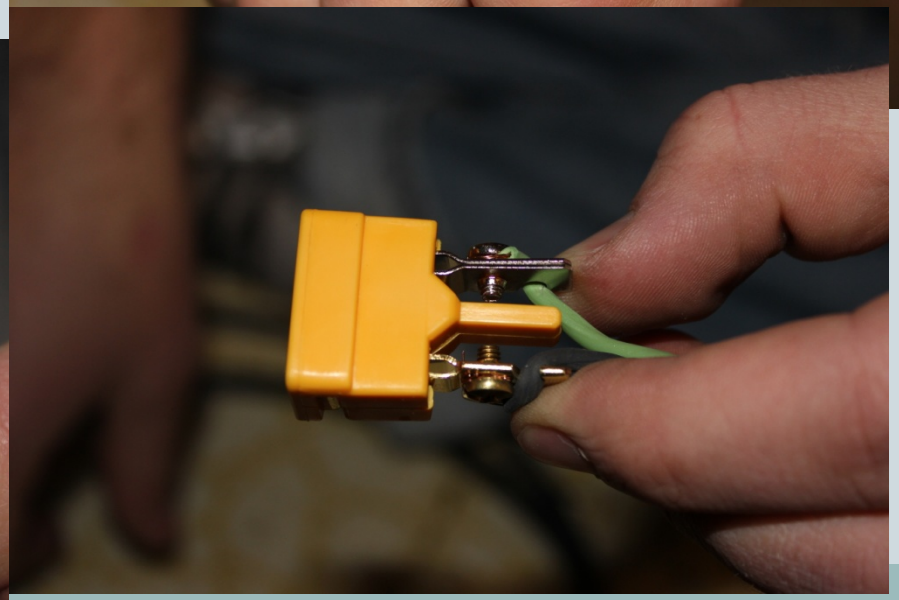
Attach male/female connectors to the motor

Use pliers to crimp them down.



Remove plug-in from housing.

You may have to remove some rubber coating from the extension cord wires in order to connect it to the plug in.



Attached cord shown with optional watt meter.