The Mad Housers stove is simply and cheaply made, yet puts out a surprising amount of heat. Properly used and maintained, a stove can last for a couple of years or more.

- Expanded sheet metal grating, 1'x1'
- 5 gallon heavyweight steel shop buckets, "Rielke" opening lids, 3+
- 2" diameter electrical metal conduit pipe, 10' long, one per stove
- 1/4" bolts, 8 per stove
- #8 self-tapping screws, 2 per bucket plus one for the stovepipe
- 2 Bricks, broken in half
- Materials for a fire
- Electric drill, with 1/8" and 17/32" metal-grade drill bits
- Circular saw with metal-cutting abrasive blade
- Vise grips or heavy pliers
- Poker, tongs, or other tool for handling things in a fire
- Tape measure
- (optional) Jigsaw, with metal-cutting blade

The stove is a basic Franklin design. The body is built from nested shop buckets; the upper buckets have their bottoms removed to extend the length of the firebox, while the bottom two buckets keep their bottoms to provide a dead air space between the firebox and the floor. The grating, which rests upon the brick fragments, raises the fuel above the ventilation holes at the bottom of the firebox. The stovepipe is prevented from falling through to the bottom of the firebox by the screw inserted at its base.

The stove is designed to burn wood or, preferably, charcoal. If you’re burning wood, it should be as dry and seasoned as possible. Wet or green wood won’t burn well and will leave more deposits on the inside of the stovepipe.

To use the stove: take the stove outside and dump out the ashes. Put your fuel in the stove and start a fire on top. The fire will burn downwards; starting the fire on top helps prolong your burn time. Once the fire gets going, put the stovetop on and carry the stove into your hut. Drop the stovepipe into the hole in the top of the stove. If smoke starts pouring out of the airholes at the bottom of the stove, it’s likely that your stovepipe isn’t drawing. This could be for a few reasons. Your stovepipe could be clogged; if so, clean out the pipe. If the pipe is clean, another possibility is that the air in the stovepipe is too cold. Try taking a piece of newspaper, lighting one end, and warming the pipe with it to get warm air rising up the pipe.

To damp the fire, place bolts into the airholes to diminish the fire’s air supply. To give it more air, remove bolts - be careful, they’ll be very hot!

Making charcoal is easy and useful. Charcoal is made by denying a wood fire air. When this happens, the residual heat chars the wood, driving out impurities and water. This results in lightweight, clean-burning charcoal. One way to make charcoal is to start a wood fire going in a 55 gallon drum that has its walls intact (no ventilation holes punched in the side). Once the fire is going well, clamp the lid on the top of the barrel and let the fire smother. After a few hours, shovel out the charcoal.