Innovation Park Water- Progress Report V

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Objectives: Create second supply order for, look at coffee pot heater, and continue research on noryl plastic.

Materials and Methods

Progress:

A coffee maker was taken apart in order to see components of a heater and use it for the water purification device. There was a setback in progress since there was no appropriate screwdriver head at school, so the coffee maker needed to be taken apart at home. The shape of the screws in the coffee maker resulted in finding someone with the appropriate tools, as the head was not a size that comes in a regular pack. The coffee maker was taken apart to remove the heater and inspect how it fit in with other components. Figure one is the picture of the heater from the coffee maker that will be used to boil the water in the first chamber of the water purification device. The heater is already connected to a breadboard so there will be no necessary programming for the heater. Figure 1 was also uploaded to the media tab in the website so the picture can be easily accessed.

A second supply order form was created because adapter wires needed to be purchased for the solar panels. Two 12 AWG wires, a male and a female, were purchased in order to connect the solar panel to the charge controller.

A 12-V battery was also brought in for the project in order to power the heater when there is no electricity generated from the solar panel. The charge controller will modify the voltage of the battery as the solar panel generates a charge.

Noryl plastic was researched as the plastic used to construct the shell in the initial design of the purification device. After thorough shopping, its high prices forced the design of the device to be modified to include an insulator and generic plastic so the price of construction could be lowered.

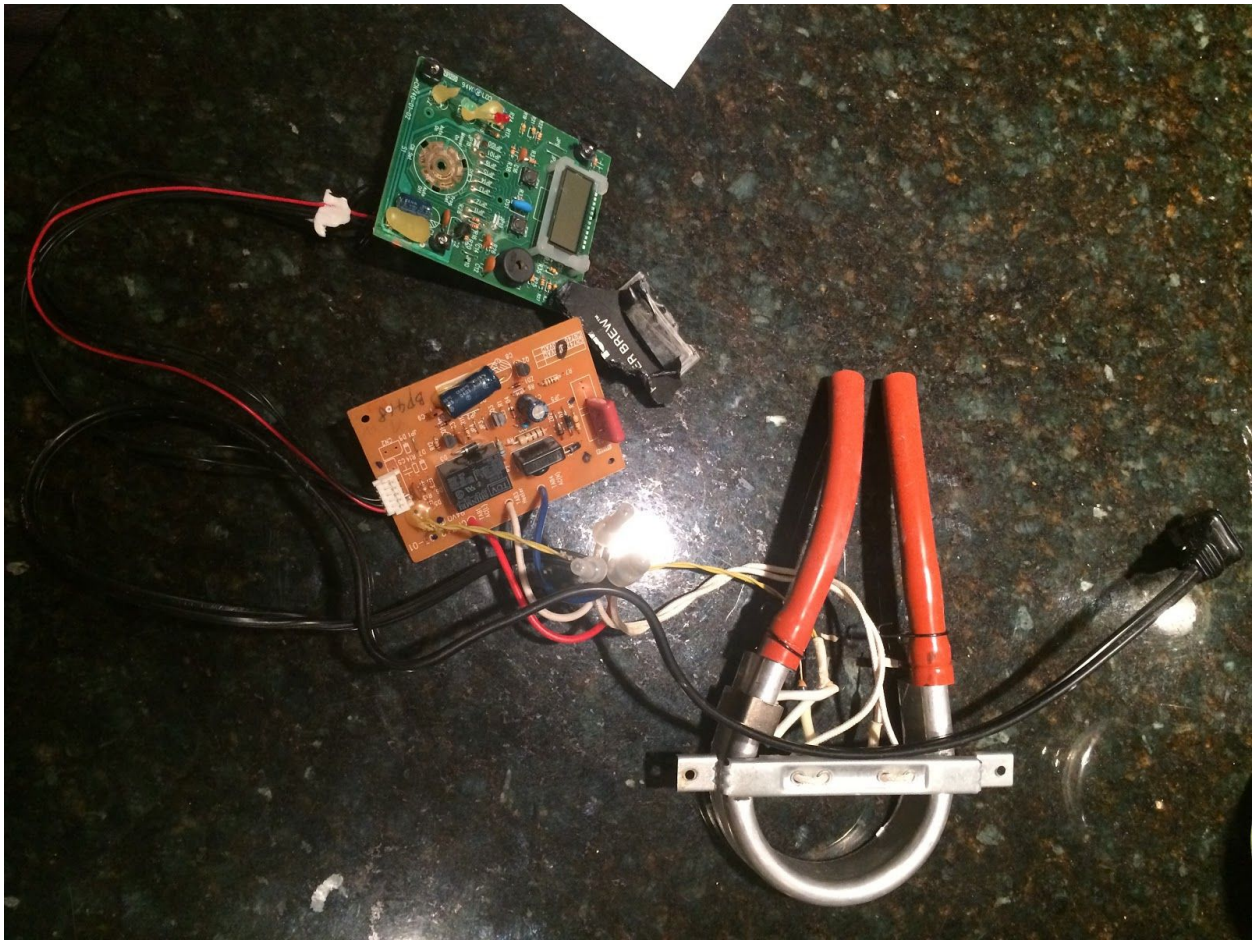

Figure 1: This image shows the heater and the breadboard that was taken out of the old coffee pot. The plan is to use this heater in the water purification device instead of buying one to save money. The heater will be in the first chamber to boil the water.

Work Planned Over the Next Two Weeks:

The noryl plastic will be ordered and an insulator will be decided on. Once these components arrive, construction of the purification device will begin. The chambers cannot be constructed until the shell is built as the technology inside does not take up a lot of space. The condenser coil will also be tested to ensure that it works.

Data and Results

No data or results at this time. No experimentation has occurred.

References

No references at this time.