

DELI DISPLAY CASE CONVERTED INTO A CARNIVOROUS PLANT HIGHLAND CHAMBER

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I would like to thank everyone who has converted a chest freezer into a highland chamber for *Nepenthes* and other carnivorous plants. Seeing all those videos of setups, conversions, monitoring systems, and H₂O/RH automation systems are what pushed me to find a different, more enjoyable visual solution to having a highland chamber. This setup is for the serious *Nepenthes* enthusiasts and collectors.

The main issue I had with chest freezer highland chambers is that you must stand right over the top to see your plants through a piece of glass that is most likely not clear or blocked by light fixtures, etc. So as the months went by, I kept finding myself standing in grocery stores staring at beverage coolers, big ones, small ones, and giant floral coolers, which are all expensive. Then I was at my friend's Italian deli and noticed this very cool desert deli display case, all glass except for the bottom. It was perfect! I was drooling with ideas racing through my head of how it would look full of plants. I took a picture of the case and sent it to my now business partner, Robert Slothower, and within weeks he found a used one for around \$300 delivered. It was fully functional and all glass, including the top. So, we were off to the races with a new project.

Now to plan the automation and monitoring systems. Sidenote, these types of coolers are not meant to be outside in the elements, however this one sits on my covered back porch out of direct sunlight.

Lighting: LED Full Spectrum. Sits on top outside of the chamber – directly on glass during winter and raised above the glass during long summer months. We are located in Southeast USA (Florida).

Temperature: We needed to override the factory temperature controller. The items needed to make this work are: Honeywell 4-stage Programmable Thermostat which allows gradual temperature changes and sits inside the chamber; transformer 110v – 24v; solenoid 110v – 24v; Cat5e/6e cable or any light gauge electrical wire.

Watering: Any misting system works, but we chose a 45-psi electric pump to push the closed loop water system.

Humidity: We use a digital humidifier with timer and detailed settings.

Monitoring: For temperature and relative humidity, we like the “SensorPush” portable monitors used with mobile app.

