



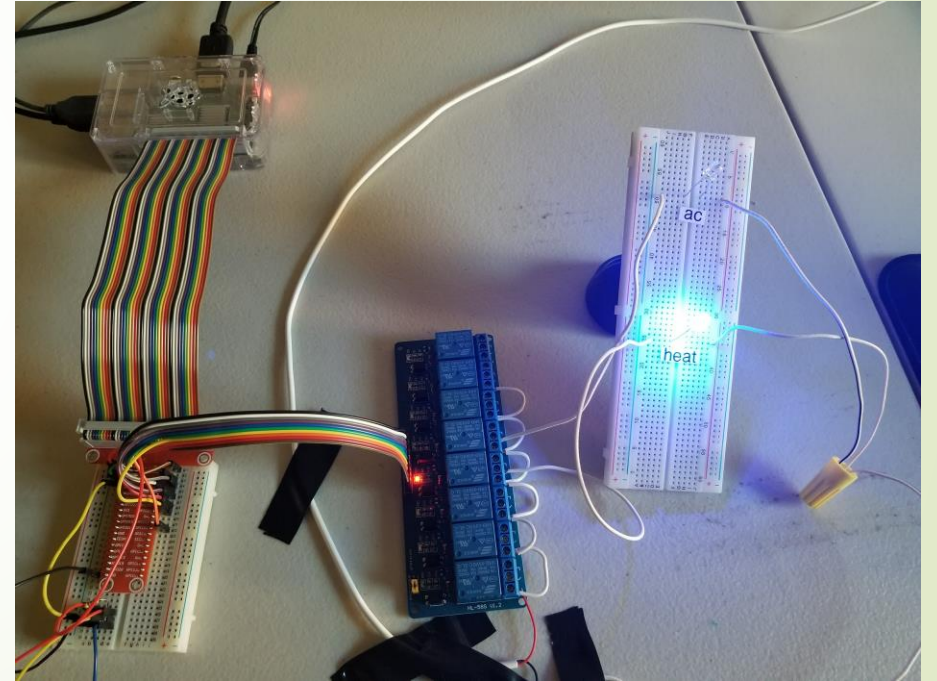
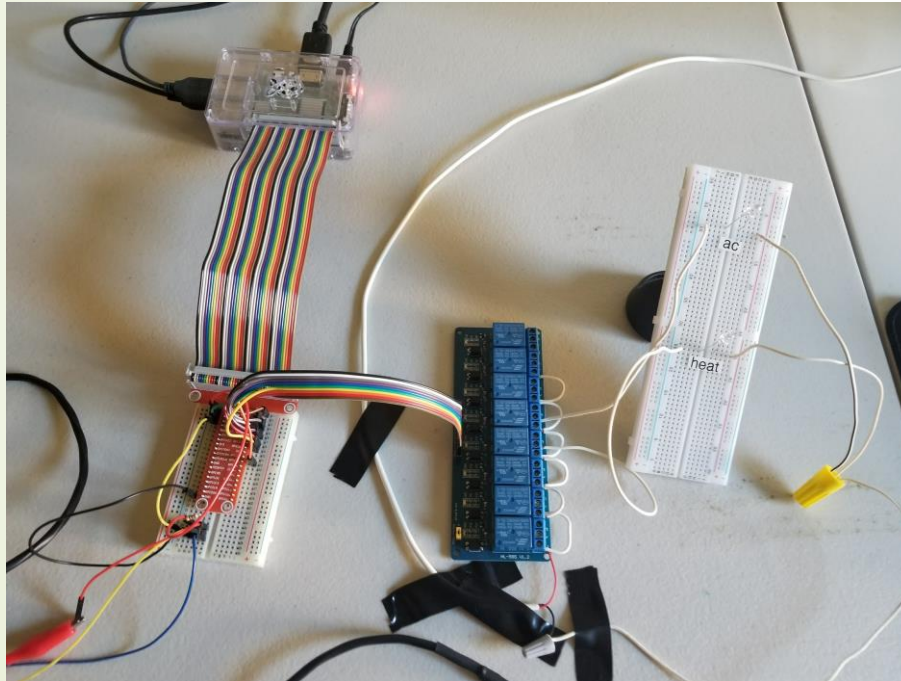
Greeb

Home automation with Raspberry Pi and Python3

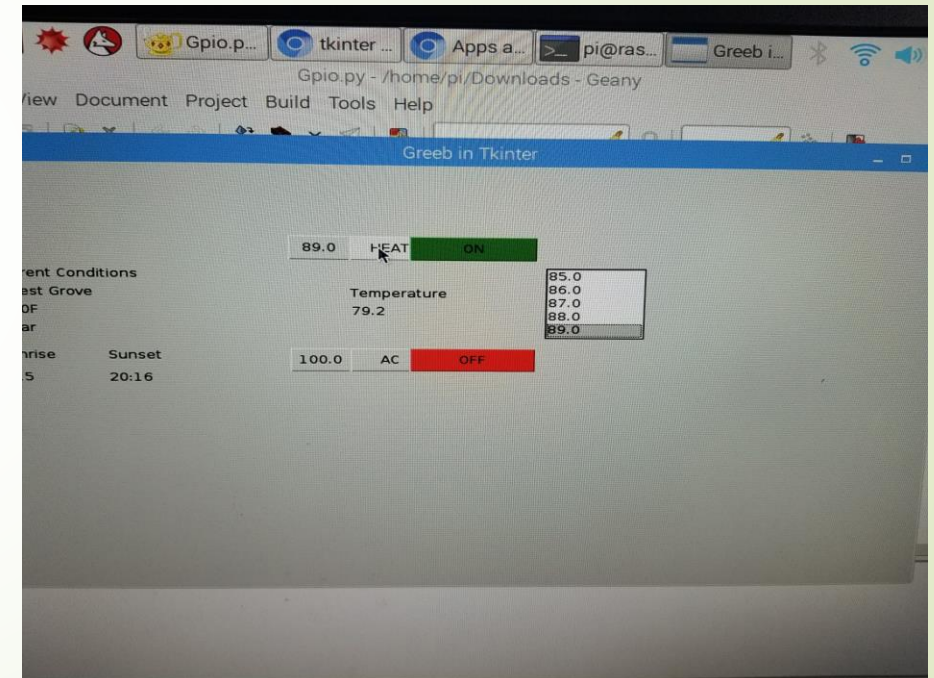
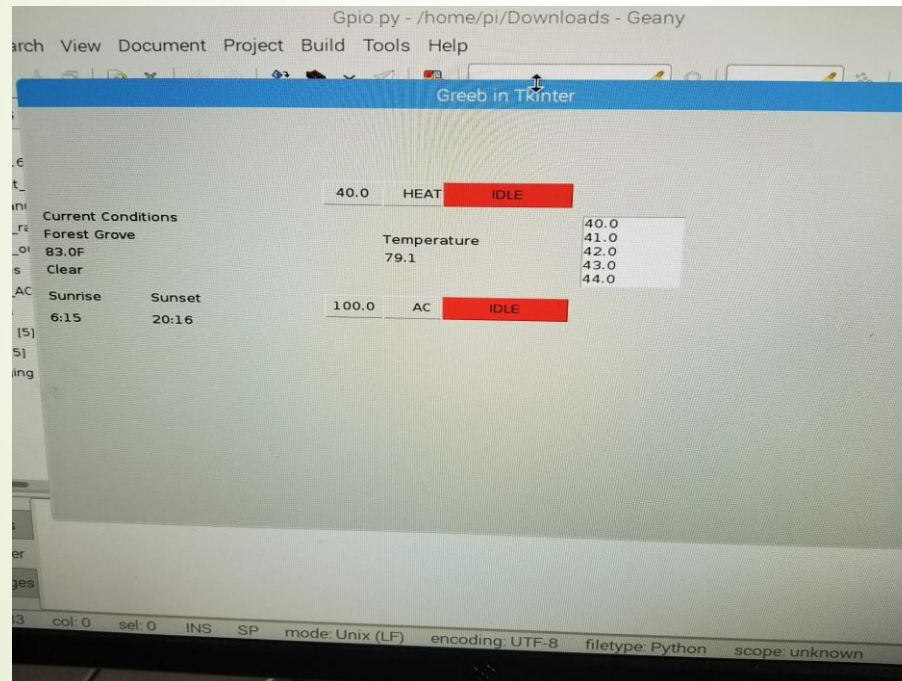
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Basic hardware setup



Minimal interface





Current features

- Heating and Air condition controls with hardware connection to HVAC system
- Current weather conditions through Weather Underground API
- Ambient temperature with DS18B20 sensor



Lessons

- ▶ Even though it sounds good, limiting yourself to one framework can be challenging
- ▶ If you know how you want something implemented in the beginning start with that.



Future additions

- Environmental learning algorithm based on heating/cooling properties of the target environment
- Automated heating/cooling using outside weather conditions (for systems with external air ability)
- WeMo device integration (lighting, etc.)
- Alexa, IFTTT integration
- API for remote access (RESTful, Android, iOS)
- Irrigation controls



Contact and Resources

- Greeb is currently available on Github:
<https://github.com/ChrisGatehouse/Greeb>
- A quick demo of it running is here: https://youtu.be/_FIS6iQvN7s
- Email: cgate2@pdx.edu