## Sep 5, 2023 | [Senior Design Team 50 Meeting 1](https://www.google.com/calendar/event?eid=NWc1ZTlzNThtbjFmbHNjdmxwN2Yzcjc1dmsgcmFiYWlsZTNAbmNzdS5lZHU)

Attendees:

Present [Huangjie Gong](mailto:huangjie.gong@us.abb.com)

Present [Andrew Bailey](mailto:rabaile3@ncsu.edu)

Present [Manny Harris](mailto:erharris@ncsu.edu)

Present [Jeremy Edmondson](mailto:jedmond2@ncsu.edu)

Present [Labib Kasim](mailto:lkasim@ncsu.edu)

Present [Ralph Cullom](mailto:rmcullom@ncsu.edu)

Previous Action items:

* ~~Set up recurring meetings, weekly or every other week~~
* ~~Obtain info about relevant hardware from previous team~~

New Action items:

* Due EOD 9/7 - Ralph (Meeting Scheduler) - Set up recurring Google Meets invite every other week on Tuesdays from 9-10AM. First meeting 9/12

Agenda:

* **Introductions**
* **Scope of project**
  + Algorithm to separate loads from a single measurement
    - Use this to save power and predict high power consumption
  + Last years project was able to receive measurements on a local level and use machine learning to disagrigate
    - Training and using the model will become a separate process
  + ML model is able to take in data, but needs to be updated
    - Data storage and mobile application to be implemented
    - Device will need to send data straight to server instead of copying it to a local drive
* **Expected deliverables**
  + Long term goal is a device that will sit on a residents outdoor power meter that will measure the power consumption, send data to a server, then use an ML model to disagrigate the data
    - Machine learning model is a high priority for completion (or further improvement)
      * Improve accuracy and stability of the ML model
      * Getting enough data for the model is problem right now
    - Documentation and communication are key
  + Hardware could also use improvement, such as its footprint and enclosure
* **Action Items**
  + Recurring meetings to take place every other Tuesday 9-10AM
  + One set of hardware is currently set up at a location to collect data to train the model, another is available to set up to collect data
* **Questions/Concerns**

