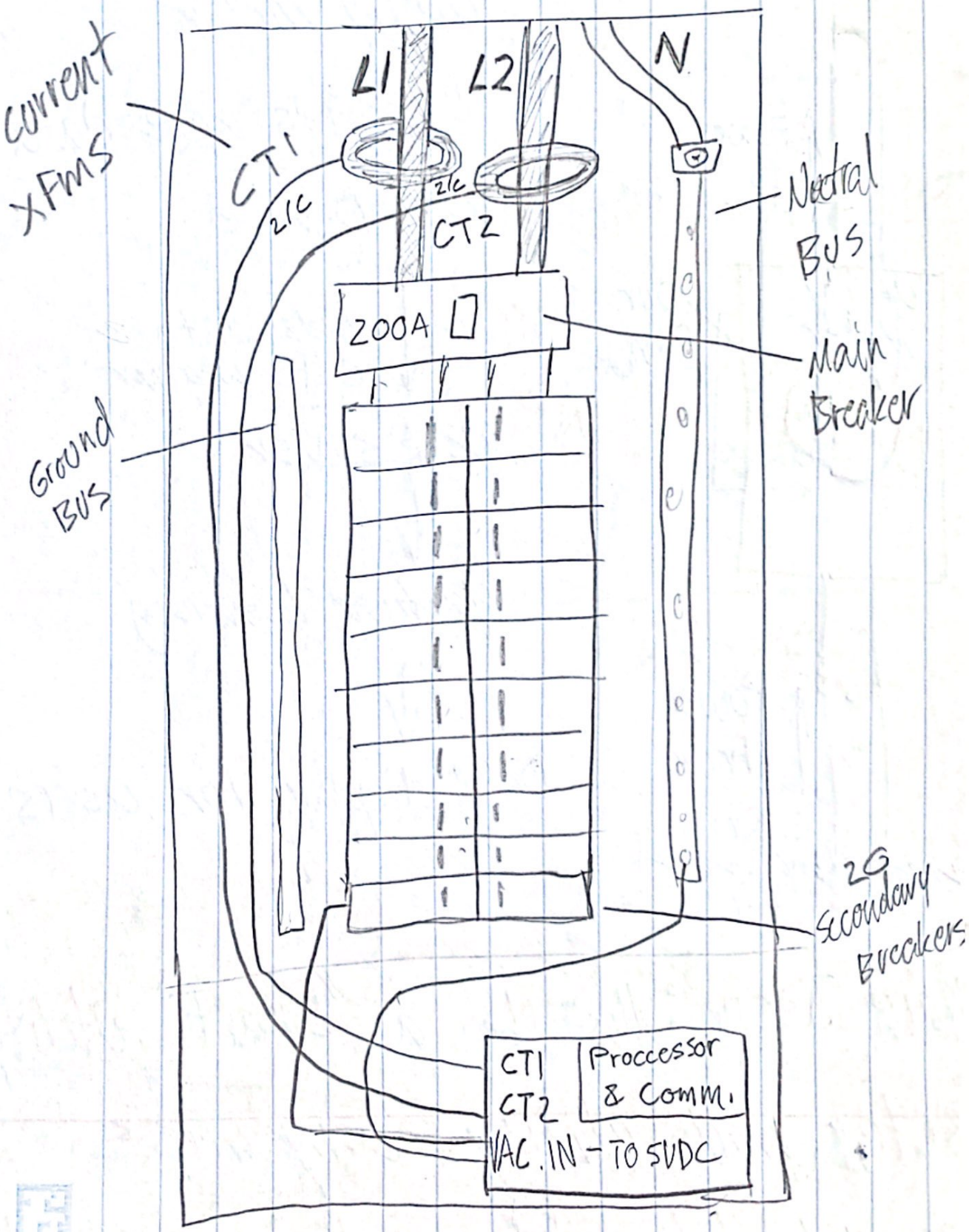
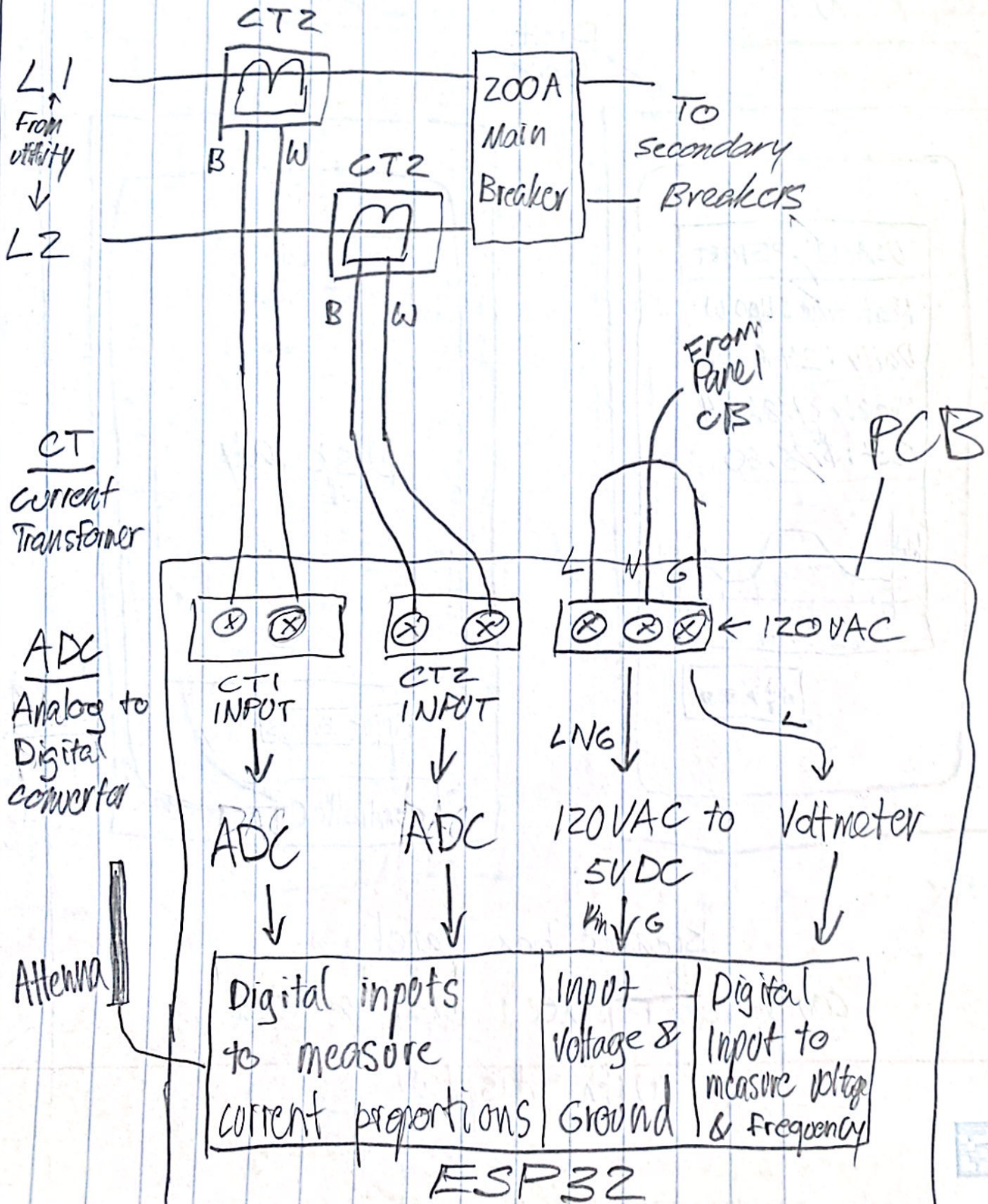
01

Conceptual Overall Physical Layout



02

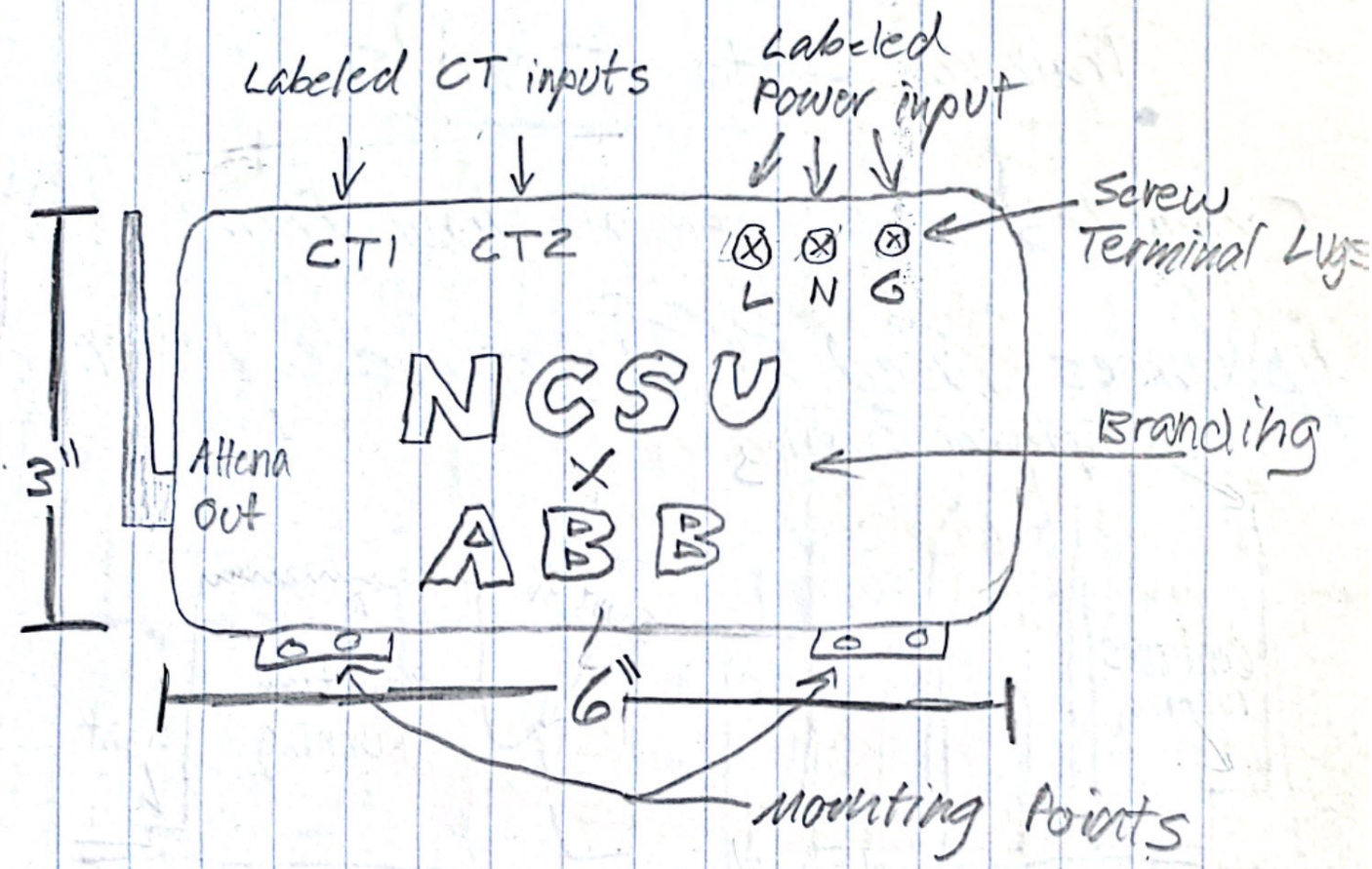
Conceptual Functional Diagram

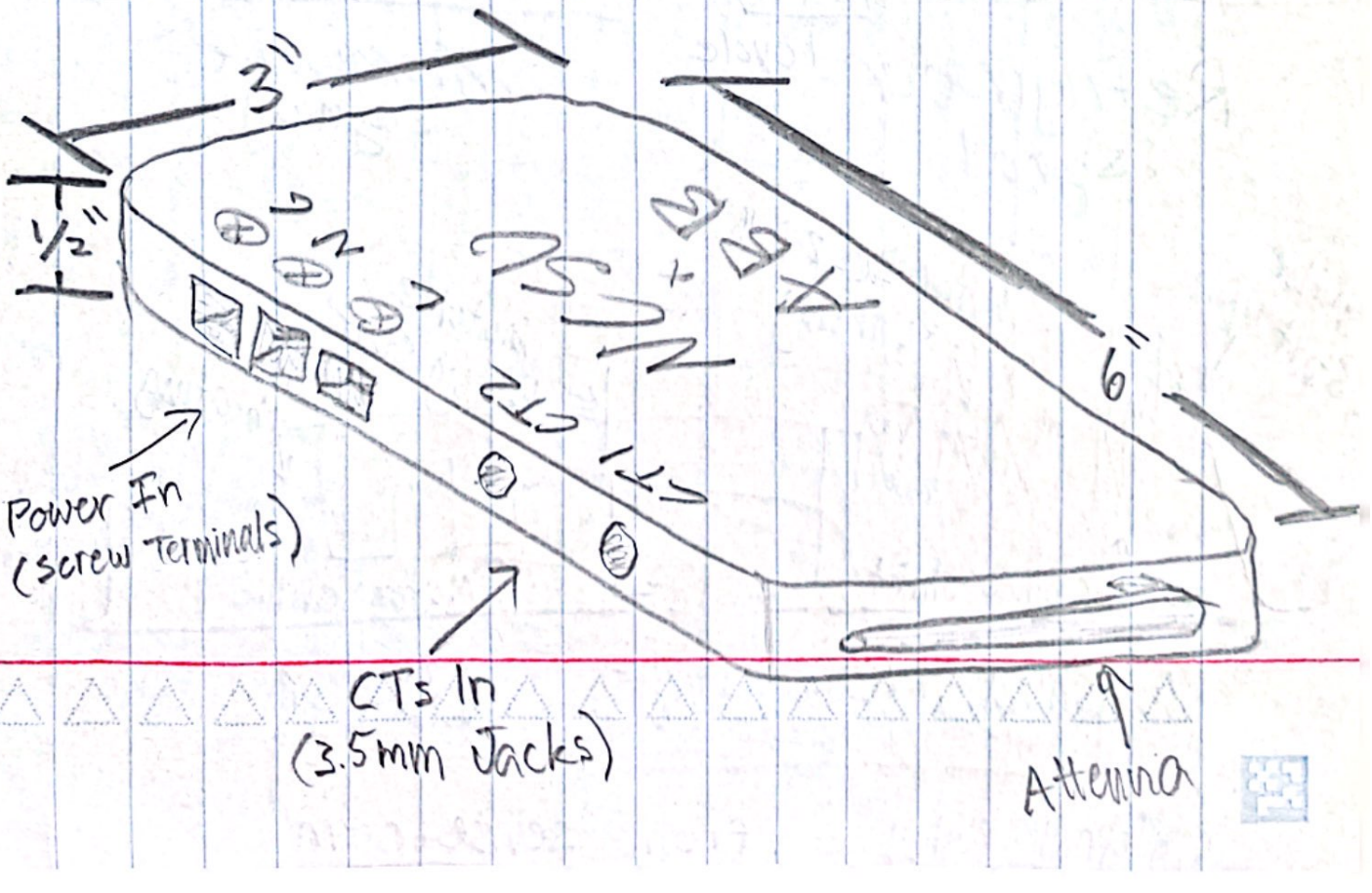


03

conceptual

Physical Device

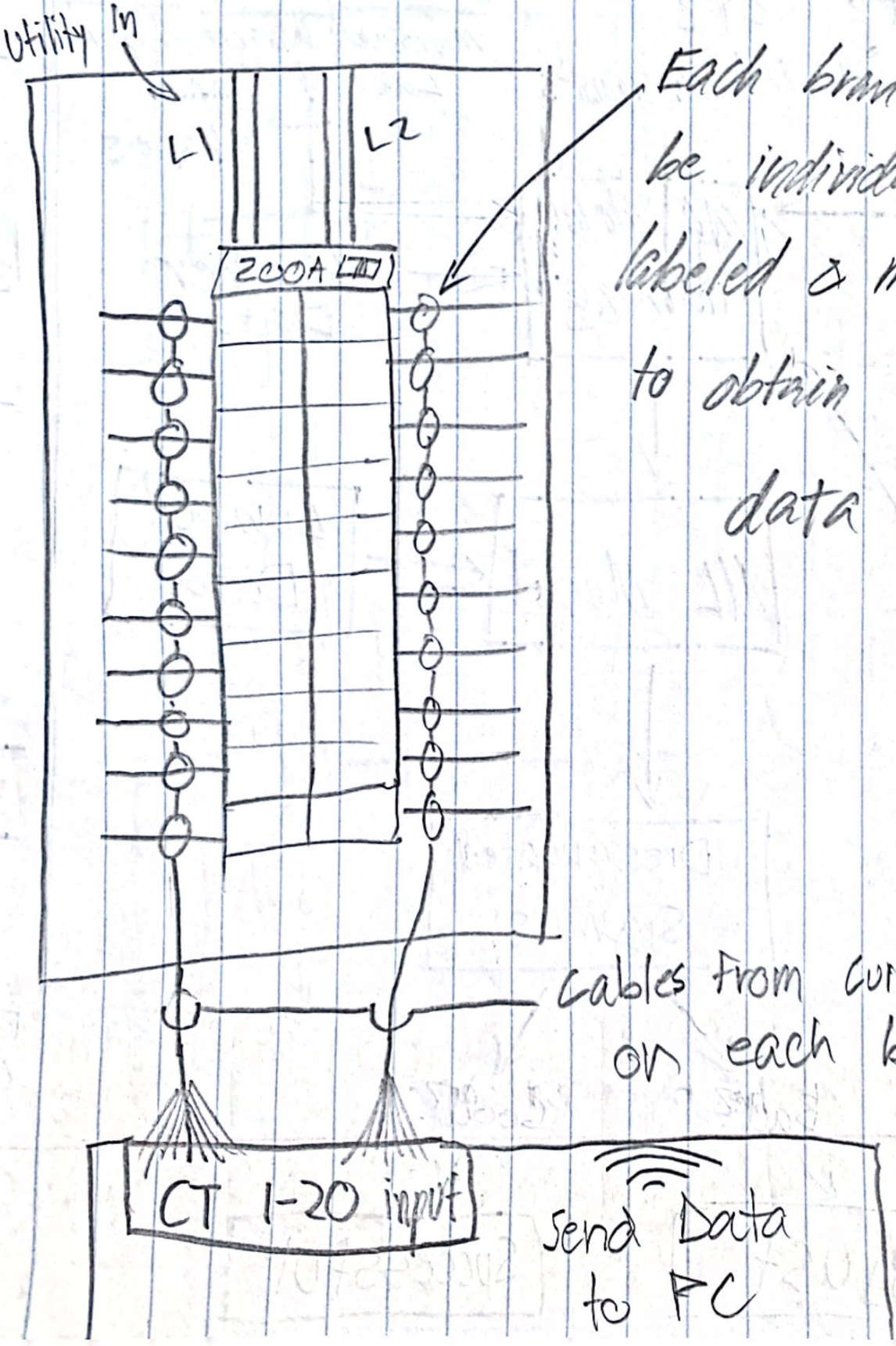




MLD

Conceptual

Device to gather ML training Data

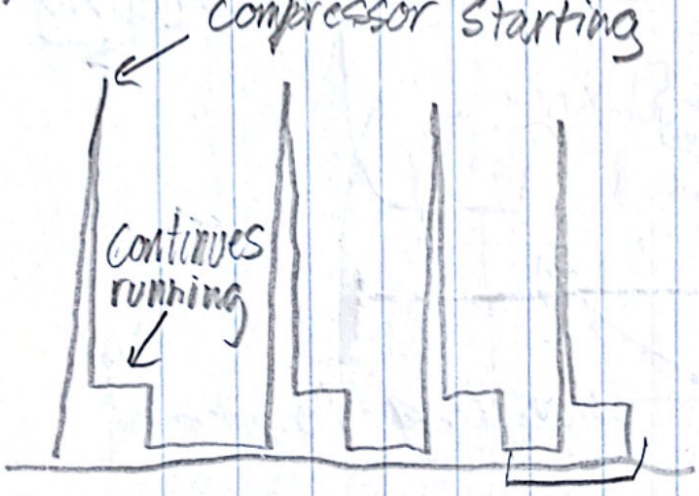


ML2

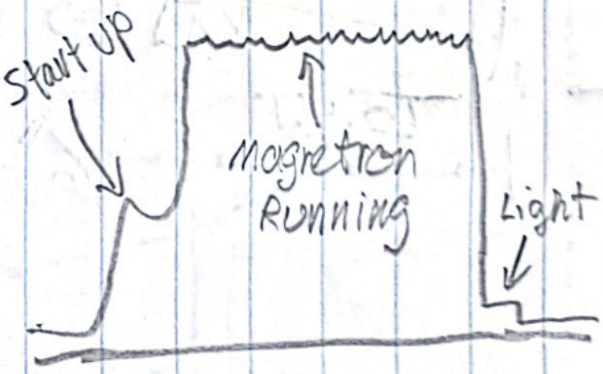
Conceptual

Training Data signals

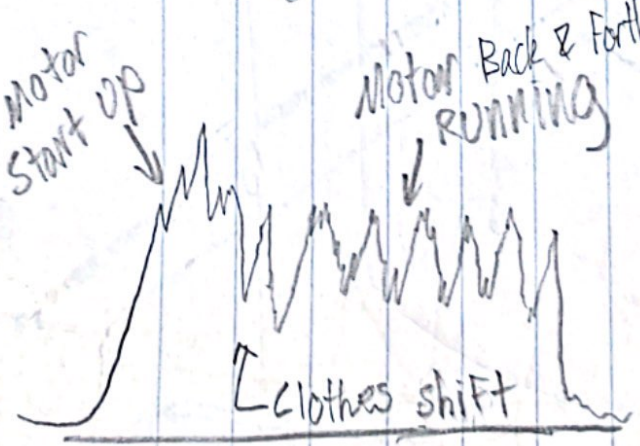
Examples of typical draw from appliances used to dissagrigate power.



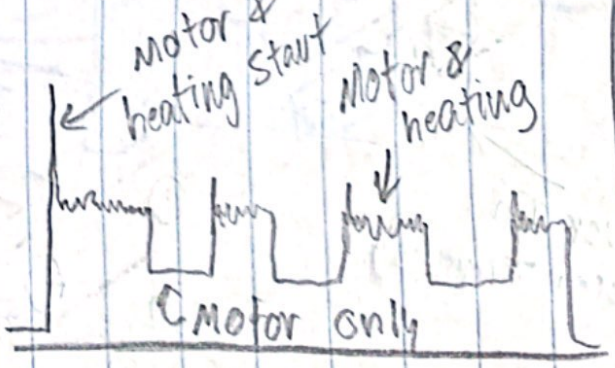
Refrigirator signal



Microwave signal



Washing Machine

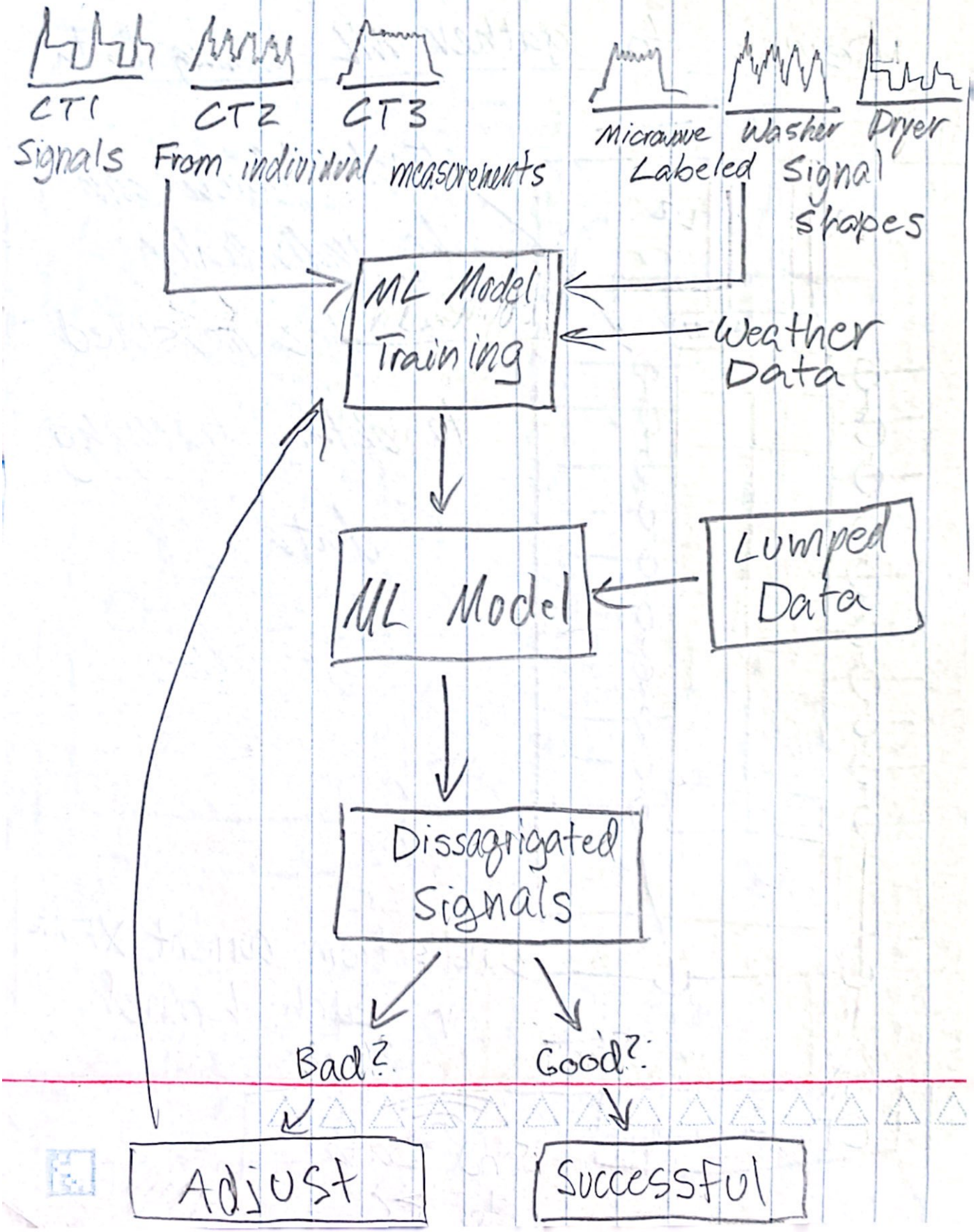


Dryer

signal shapes from sense.com

ML3

conceptual Training ML Module

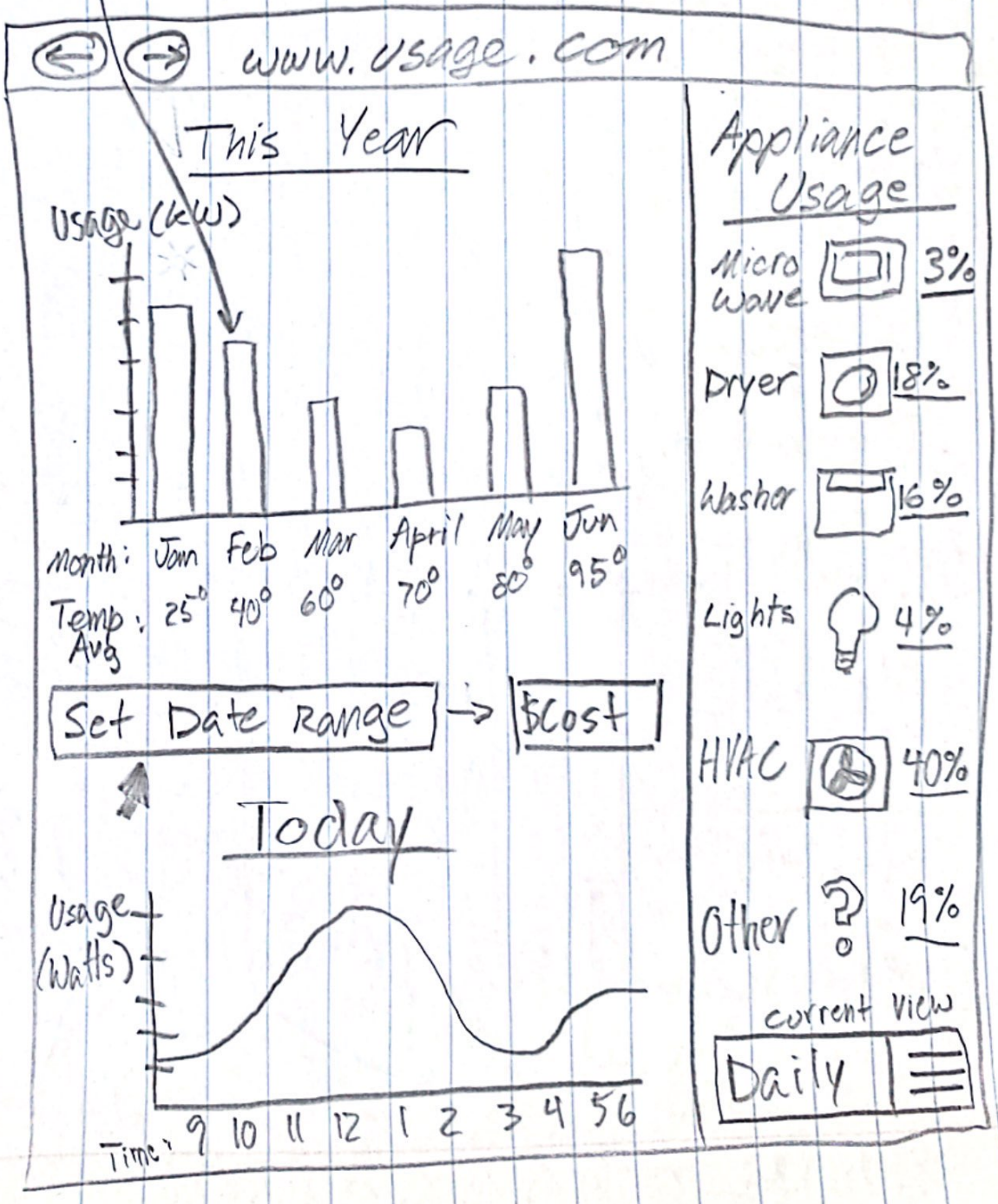


Change bar color based on weather
Colder → Blue
Normal → Green
Red → Hot

(UI)

Conceptual

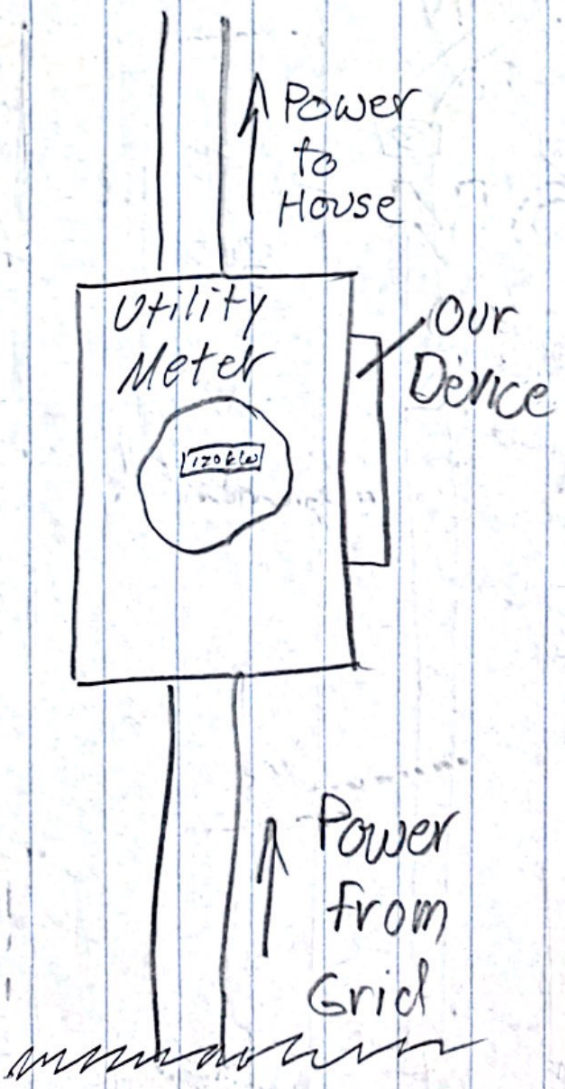
Graphical User Interface



A1

Conceptual

Sensing power using existing meter.



Utility Meter
↓ sends usage data
Our Device
↓ sends data & Gets weather
Web Sever
↓
machine learning
↓
Data display for users

Main Issue: Must be a "smart" utility meter, and utility companies may not let 3rd parties connect

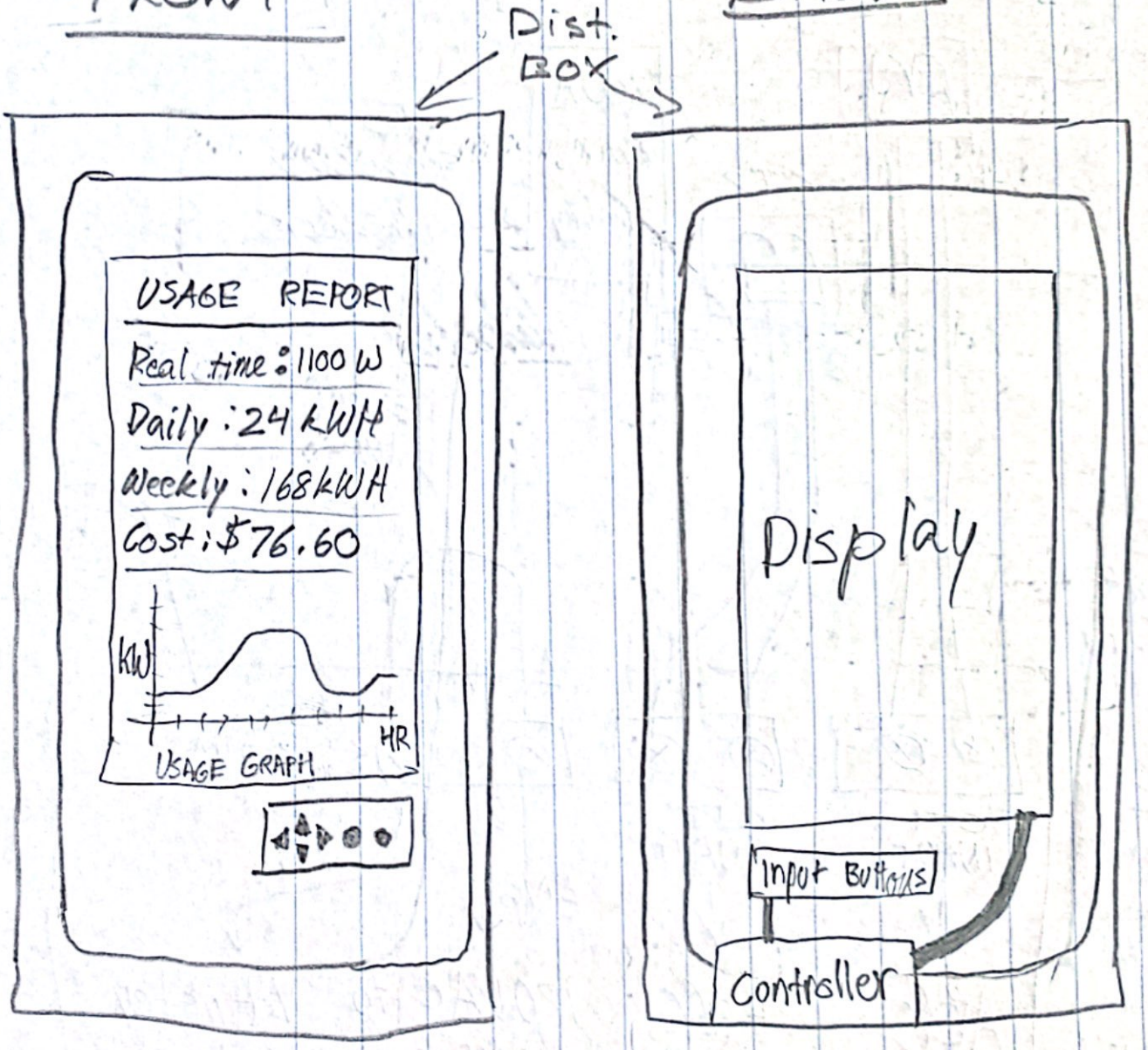
A2

conceptual

Custom Panel cover

FRONT

BACK

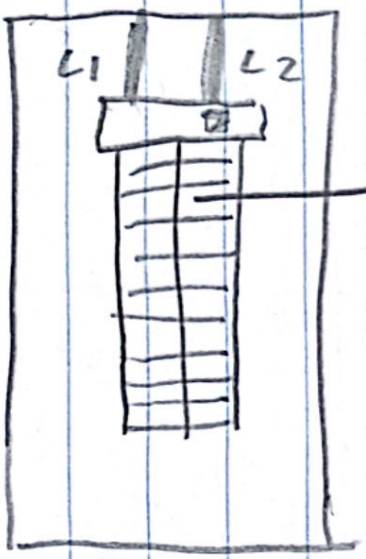


Breaker box panel could be replaced or retro-fitted with display

A3

Conceptual

Current Metering built into Circuit Breakers



Each electro-mechanical circuit breaker could be replace by one with a built in CT (for our sensor) and remote operation