**Meeting 1: 1/25/2022**

* Description Paragraph
  + Build a unit that can control the climate in a car so pets can safely be left in the vehicle on warmer days. There will be a power supply subsystem that allows the unit to be charged from the car and possibly a way to charge from a solar panel. There will be a microcontroller subsystem that is in charge of the temperature control software and the user interface. There will also be a custom PCB subsystem that will be in charge of the circuit board and other additional circuitry needed by the project
* Can use third party ac, simply must be climate control
* Adding a heating element if possible
* Can be added to any vehicle
* Look into solar panels to charge the batteries
* Adding an app, to control climate control with phone, possible battery notification as well
* A lot of freedom in how the physical product will go
  + Trunk?
  + Use research to guide the dimensions and what we think
* **Tuesdays 4:45pm every other week, meeting with Skyelar**
* Battery life:
  + Minimum – 2hrs
* Volume it can heat or cool:
  + Volume of a crossover
* Temp ranges
  + Use Texas temp ranges
    - Try and find car internal temp
  + Try and find average temps dogs should live in
* Battery charge
  + Max – 2hrs
* Cold and hot don’t necessarily have to flip between each other
* Safety
  + Make sure device is safe for a dog
* Tips and tricks
  + Set a lot of milestones (every ~2 weeks)

**Meeting 2: 2/1/2022**

* Exhaust system
  + Window bracket is a good idea
  + Look into dry ice for cooling
    - Just a maybe, might not be enough cooling power
  + Cool down water/ heat up water
    - Water as thermal capacitor, just an idea maybe nothing there
* Car on
  + Heat or cool from any temp, do more research on how much more power this would consume
  + See how difficult to heat/cool car is and then move forward with finding inside car start temps
* Where put AC
  + Dry ice / water route makes device easier to move around
  + Can go in backseat especially if bulky device
* Solar Panels
  + Possibly route solar panels through window
  + Mount panels to roof permanently and route a cable through the window
    - Unpluggable, but panels aren’t removed
  + Use solar panels as much as you can
* Should be able to charge from the car
* Size of about a seat/floorboard
* IEEE standards
  + SAE
  + Search topic with standards

**Meeting 2: 2/15/2022**