Interpreted Needs:

| No. | Need/Statement | Source |
| --- | --- | --- |
| 1 | Durable | Customer |
| 2 | Provides power | Customer |
| 3 | Provides Wi-Fi | Customer |
| 4 | Able to be Movable | Customer |
| 5 | Easy to Maintain | Customer |
| 6 | Reliable | Customer |

Design requirements:

| No. | Need | Requirements/Interpretations |
| --- | --- | --- |
| 1 | 2 | Will use solar power to charge multiple small devices( ex. phone, computer) at the same time |
| 2 | 1,6 | Will withstand weather outcomes up to mild hurricane |
| 3 | 4 | Will not be permanently attached |
| 4 | 3 | Will provide Wi-Fi to for a small area |
| 5 | 5,6 | Components are accessible and replaceable |
| 6 | 2,6 | Will use a battery to store power |

Question:

What is a Wi-Fi canopy?

Answer:

A Wi-Fi canopy just means an area that is covered by Wi-Fi. This Wi-Fi is going to come from a solar powered umbrella.

Question:

What is the solar power going to power?

Answer:

The solar power is required to power a multi charger changing station for small devices and the Wi-Fi signal. The solar power should also have a battery storage.

Question:

What are some needs for the design?

Answer:

Some of the overall needs are that is has to be durable enough to handle the weather in Florida and easy enough to maintain that it doesn’t require specialists or take long to maintain. Another requirement would be that is reliable enough not to need service a lot and provides power during the hours stated.

Question:

How often should we meet to discuss progress?

Answer:

As often as the team feels they need or if there are any questions.

Explanation of Results:

The customer statements were gathered during the sponsor meeting by asking questions and taking notes on the responses as necessary. Some of the needs were stated without questions being asked. Clarification of the requirements were found by asking more detailed questions.

Needs into Specification Explanation:

The group is trying to turn the needs into specification by discussing different layouts based on individual research into different shapes of the umbrella for maximum durability to withstand different types of weather and solar power efficiency. Research is also being done for how many outlets for the charging station should be included and how the Wi-Fi can be incorporated into the design shape. Discussion is also happening with the advisor on how the design should be layout and with planning a block diagram for the solar powered Wi-Fi umbrella.

Standards:

A standard that is going to be used for the Wi-Fi repeater is the IEEE 802.11 standard.