**Introduction:**

Our design uses solar panels to supply power and shelter individuals waiting for the bus, along the sidewalks, and in parks. The design allows individuals to be protected from the sun while being able to charge their electronic devices and have an internet connection.

**Level 0**

| Module | Charging Station |
| --- | --- |
| Inputs | Solar Power: 255 VMobile device input: 5V each input |
| Outputs | Mobile Device output: 5V peak value |
| Functionality | To allow for charging of mobile devices in parks, on sidewalks, and when waiting for the bus. |



**Level 1**

| Module | Wifi Canopy |
| --- | --- |
| Inputs | Solar Power: 255 VWifi Repeater input: 120V |
| Outputs | Wifi Repeater output: 120V peak value |
| Functionality | Amplify the input signal to extend the already existing wifi connection. The amplification should be set to the best performance optimization of the wifi repeater. |



|  | Safety | Efficiency | Power | Customer Needs |
| --- | --- | --- | --- | --- |
| Resists Damage | x |  |  | x |
| Requires Minimal Maintenance | x | x |  | x |
| Is Power Efficient |  | x | x | x |
| Stores solar energy |  |  | x | x |

**Summary:**

Our design uses solar panels to supply power and shelter individuals waiting for the bus, along the sidewalks, and in parks. The design allows individuals to be protected from the sun while being able to charge their electronic devices and have an internet connection. These shelters will come with wifi repeaters to establish a connection and various input ports for mobile devices such as cell phones, laptops, and tablets.