**Team TMG**

**Members:** Gamutan

**Overview:**

As a person that lives in a tropical country like the Philippines, it is by no means a surprise that almost everyone complains about the heat in this country, especially during peak heat seasons, and the fact that there are not any seasons where it is cold. For this project, the team would like to focus on understanding about the temperatures where in this case would be the hot weather that Filipinos are forced to live under, and how it affects those people in their everyday lives and their wellbeing.

**Solving the problem:**

Through the progression of our technology and the ways we cope with the heat in this country, we have alleviated the heat problem with air conditioners and fans which helps lower the temperature. However, this could only benefit people in rooms or in closed spaces like in the car or the train. Avoiding the heat was also a good solution through the introduction of umbrellas and caps to not get directly hit by the sun rays.

For the people that would want to go to places by foot and walk to their destination, the latter solution would be a good option to have, but even if you cover yourself from the sun, for how hot the Philippines is, it will still make you sweaty and sticky from the high temperature and hot air the sun gives you. We then find the solution of having handheld fans which are a good source of wind blowing to you, helping you cool down. We also now have electric hand fans that are rechargeable and handy for getting cool air more efficiently.

With these solutions in mind, the team’s project plans to get the best out of all these great solutions and turn it into one that efficiently provides the necessities of a sweating Filipino. The tasks that the project seeks to perform are to provide the benefits of a portable electric hand fan as well as the benefits of a comfortable cap that can regulate the temperature of your head keeping the wearer cooler in the summer.

**The Device:**

* **Device name:** Cap-Ice
* **What it is:**
* Cap-ice is a product where it would essentially be a cap that has cooling technologies embedded, where it would give a breeze of cold air.
* **Features:**
* **Cooling System:** The main feature of the device where it functions as a fan, giving cool air for the user
* **Comfortability:** Receive the benefits of a cap you wear which helps in regulating your heads temperature and cover your scalp
* **Efficiency:** A full charge will be enough for remaining cool throughout the day
* **Questions about the Application:**
* **Who are the potential users?**
* The users of this device will be people living in tropical countries and generally everyone who is going through hot weather
* **What tasks do they seek to perform?**
* People would want to keep cool and not sweaty through their days with hot weather
* **What functionality should any system provide to these users?**
* The device should provide users with cooling functionalities as well as comfort without the need for carrying hand fans or umbrellas
* **What constraints will be placed on your eventual design?**
* The device should not be bulky that it would be hard to carry around and wear on the head. The device should also be efficient enough to carry a full charge for the day. As for charging, the method should also be in a way that it does not take long and it utilizes the sun, such as solar power charging.
* **What criteria should be used to judge if your design is a success or not?**
* **Size**
* **Battery Life**
* **Cooling**