



Technical writing (ENGL 220)

Innovation Proposal

Solar Mobile Phone Battery Charger

Contents

BACKGROUND	2
OBJECTIVES.....	2
VISION	2
MEMBERS	2
SOLUTION DESCRIPTION	3
SOURCES NEEDED	3
WORK PROCESS	3
OUTCOME:.....	4
IMPACT ON SOCIETY	4
<i>Environment impact:.....</i>	<i>4</i>
<i>Economic impact:.....</i>	<i>4</i>
<i>Industrial impact:.....</i>	<i>5</i>

Date: 28th Jun 2011

To: Ms. Sabina Ostrowska

From: Reem Ashour, Hanan Alhosani and Aamena Alhammadi

Subject: Solar Mobile Phone Battery Charger

Background

With the fast increase of technology and science in engineering disciplines, new innovations are created every single minute. As the populace relies more and more on mobile phones, features always were requested to be improved, applying the latest technology. It is well known that short battery life considering as a serious problem with the mobile phone users, by charging it twice or more a day. In our daily lives, carrying cables to everywhere in order to avoid switching off the mobile makes its usage unpractical. Technology is meant to make our lives easier. Therefore, we come up with our new innovation which will focus on extending the battery life by using solar cells as a wireless charger. Moreover, it will help in preserving non-renewable resources by using the natural one.

Objectives

We aim to study and search about the solar battery to embed it into the mobile phones in order to achieve longer battery life. Furthermore, we would like to construct a wireless mobile charger that works for all types of mobile. Additionally, we seek to reduce using electricity, by making usage of the endless natural resource the sunlight.

Vision

Facilitate continuity of the communication between people 24/7 .

Members

- 1- Reem Ashour
- 2- Hanan Abdullah Al-Hosani
- 3- Aamena Khalil Alhammadi

Solution description

In order to solve the problem of short life battery, we propose adding a solar battery to the mobile phone. There will be two power sources for the mobile, the electrical charger and the solar batteries, which should be located on the surface of the device in order to expose to the sunlight. Solar batteries will charge using the sunlight and saving the solar power in order to be used all the time. A notification about which battery is currently being used will be provided.

In addition, there will be some issues about the increase of the mobile size. To solve this issue, a slight electric battery with wide area will be used. The solar battery will have the same size as the electrical one. Moreover, the solar batteries are made of heavy glass. We think either to use lighter glass or plastic with the same functionality.

This innovation will work as the following: when there is sunlight, the mobile sensors will be affected. It will notify the user that the solar battery will start charging. It will take 10 seconds to switch off the phone and restart it using the solar battery. A mobile with a solar battery can be charged even when its switch on. If the amount of light decreases, the system will provide the user with two choices, either to use the electrical battery or to complete using the solar one. In case the user chooses the solar one, the functionality of the solar battery will be discharging which means producing power without charging. However, when it becomes out of charge, the mobile will automatically use the electrical battery.

Finally, this idea seems hard to be achieved, but with the fast improvement of technology we think that it will be workable.

Sources needed

- 1- Useful articles from different websites.
- 2- Meeting some experts in solar energy, signals, waves and communication engineers.

Work process

In order to achieve the aims of our innovation, the work will be divided into 3 topics; each member will be responsible to search and help in building the innovation. Sources which will be

used will be discussed among members. The Agail process will be used in writing this report, which depends in the daily meetings. In the meeting, a discussion of the subtopic, information and the progress of the report will be taking on consideration. Mrs. Sabina will help in this report by having small meetings with her for two purposes, either to ask some questions or to show progress of the report.

Outcome:

After coming up with our innovation, we are expecting to have many outcomes (advantages) such as:

- Non-renewable resources will be preserved for longer time.
- The mobile phone will be more practical device which can be used every where without mattering about different cables that uses in different countries or about different chargers.
- The mobile phone will be charged wirelessly and easily.
- Communication between people will be much easier since the battery life will be extended.

Impact on society

For any new and effective innovation, studying the impact on environment, economic and industrial is important and helpful.

Environment impact:

Solar energy is environmentally friendly; it is a clean energy and it has many benefits to the environment. The most important benefit is that solar energy will save the earth from the global warming, unlike other sources that cause this phenomenon.

Economic impact:

Even if solar battery is very expensive but solar energy is free and it will reduce energy costs and save user funds so it will be spread between people.

Industrial impact:

- Issues of charging would be solved as long as sun light is around.
- This innovation will be available for all mobile phones with different sizes.
- This innovation use infinite recourse so people can use mobile phones even without electricity.