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Course: Engineering Design 6 EE322

HW3

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“I pledge my honor that I have abided by the Stevens Honor System.”

Below is the list of potential projects that I might join:

(The list is scaled from the most interested project to least interested project)

- Project 1: Crime Rate App by Nurul Rozlan
- Project 2: Wireless Charger by Suraida Alias
- Project 3: Solar Charging Cover by Kamal Bhakta
- Project 4: Holographic Projector by Luis Luna
- Project 5: Wireless Battery Charger by Patrick Verbovsky

Project 1

Project definer: Nurul Rozlan

Project name: Crime Rate App

Potential contribution to the project:

The project is a mobile application that will inform the users the crime rate in a specific area. The project will rely mostly on the development of computer programming for the application, not so much on any hardware aspect. In order for the application to work, it will need to sync its database with any police or enforcement agency database to update the users of any crime rates a location. Therefore, I think I can contribute to the project by convincing and getting permission from the enforcement agencies to use their databases and sync them to the application. I can also contribute by developing the program for the application.

Suggested possible adjustment:

I think one important adjustment that can be added to this project is to allow the user to use a text message services as well since some areas will not be covered by internet providers. There is also the possibility that not all people will be able to get a smartphone so a text message service option alongside with the mobile application will make it more convenient.

I am willing to work on the project over the semester.

Project 2

Project definer: Suraida Alias

Project name: Wireless Charger

Potential contribution to the project:

The project is about charging devices wirelessly. Therefore, there is no need of any cables to attach devices to the charger. Since the wireless charger will utilize electrical engineering knowledge, I think I would be able to contribute to the project by designing and testing the components of the wireless charger to ensure that they are completed according to the design specifications.

Suggested possible adjustment:

There is no possible adjustment I could see in this system. However, I am looking for adjustment in term of ways to implement the product in the targeted area and the efficiency of the product. If the product does not yield an excellent efficiency in charging devices, then there should be a troubleshooting option to cope with that issue

I am willing to work on the project over the semester.

Project 3

Project definer: Kamal Bhakta

Project name: Solar Charging Cover

Potential contribution to the project:

The project is charging mobile devices using solar power. The idea attracts my attention because it's frustrating to run out of battery power so a solar charging cover for mobile phones might help us reduce the need to find a power source to charge our devices. Since the project will use solar panel on a mobile platform, I figure the solar panel must be small and light yet can maximize its solar collecting capability therefore I think I would work and contribute to the project by designing and testing the solar panel for efficiency and making sure that they will fit for almost all mobile devices (Apple, Android & etc.)

Suggested possible adjustment:

One adjustment that I can think of for the project is to be able to detach the cover and maybe integrate it into different mobile devices. I think this is a good feature because we know that some people have a few mobile devices with them (smartphones, mp3 players and tablets) thus they can switch the cover between those devices.

I would probably work on the project over the semester.

Project 4

Project definer: Luis Luna

Project name: Holographic Projector

Potential contribution to the project:

The project is about holographic projector that will be able to generate a 3-D projection in the air. I find this project to be interesting because it looks futuristic and I personally think that a holographic projector will be the future of image or video projection in the future. In term of

contribution to the project, I can contribute by designing and testing the holographic projector by making sure that they work as intended as that will determine if it will have a market value. I think I can contribute by producing a prototype that will then be shown to investors. I would also love to work on the laser beam and photographic plate of the projector.

Suggestions of possible adjustment:

One minor adjustment that I think should be made to the project is to integrate the holographic projector with an audio speaker to create a 5.1 surround sound as I think that will complement the generated 3-D projections coming out of the projector.

I would probably work on the project over the semester.

Project 5

Project definer: Patrick Verbovsky

Project name: Wireless Battery Charger

Potential contribution to the project:

The project is about charging a battery wirelessly. This is a great idea because it can reduce the need for any cumbersome cables or wires. For this project, I might contribute in the development and testing of the charger to ensure that the charger is charging a mobile device at an optimum efficiency. Thus the transmission of power from the charger to a battery wirelessly is what I think I will be able to contribute for in the project.

Suggestions of possible adjustment:

Possible adjustment would be in term of circuitry of the current device. The circuitry should consume less power but with higher degree of reliability. The design of better circuitry will ensure that the product will be efficient.

I would probably work on the project over the semester.