**Overview**

**Topic**

Our project is to create a pair of lens which can project holographic to the real world. The lens will be small enough for us to carry around every day. The project aims at productivity and gaming possibilities. Demonstration with holographic will be fantastic and gaming in the real world will be a real fun.

If the project is successful, we aim at taking place of VR helmets for the future. Design companies would benefit the most from our project using the real-time holographic demonstration. Productivity will be pushed beyond the limit after the main part of the project is completed.

**Motivation**

The main motivation of our project is movies about future technologies and the current problems we have. Holographic technology is important because it takes possibilities to a new level. Lots of new products relating to virtual reality is coming out these days. They all focus on creating that ‘real’ experience which went the wrong way. Holographic will merge that ‘virtual’ together with the real world, making us focus on the real thing. If I was able to work on this project, I would show him the concept of holographic and how it can change our lives. I would show him the holographic projected and demonstrate how it merges with the real world.

**Landscape**

Similar products are VR helmets. They are widely available these days. They are main competitors for our project as well. The main difference between our project and VR helmets is the core technology. Instead of letting the viewer to drown into the image shown on a screen, our project aims at projecting holographic object images to the real world. With a VR helmet you will not be able to see the real world but with our project, we are using it with the real world.

**Detailed Description**

**Aims**

The aim of our project is to implement holographic technology onto a normal sized pair of glasses. We need to prepare a lot of things before we can do this. First, we need to develop a software which is as efficient as possible. This is to make sure that we need minimal hardware power to push the whole device. And an optimized software will provide longer battery life. Next, we need to come up with energy efficient and small-sized chips in order to fit into a pair of normal sized glasses. Battery is also a huge concern for us since we have to make sure that the device is able to last at least one day for best user experience. After all these small goals are achieved, we will be able to carry out the first sample of our project.

**Plans and Progress**

The holographic lens will work mainly as a projector while we can wear it as a pair of glasses meaning that we will be able to carry it around without any problem. This also means that the device will be incredibly light and we do not need to wear those bulky headsets to make everything work.

**Roles**

Our product does not have a specific person to use, our products are for all customers. For example, It can be used to play games for children. Designers can use it to project their own design. Instead of using completely virtual space, holographic lens project images to the real world. We will be able to actually move around and interact with each other while playing games which will make it a real social activity. Meeting new friends and share all the joy will become much easier.

**Scope and Limits**

In the process of designing this product, condensing everything in only one size of contact lens may be our biggest challenge. After all, holographic projection involves many devices. It is also a big challenge to make all devices transparent. We may adjust the size of the lens if it does not reach expectations within the specified time. But considering that the contact lens must be suitable for the size of the human eye, we may change it to a normal bordered eyeglass size.

**Tools and Technologies**

High end technology is required for this project. Holographic is a technology that already exists. What we need to develop is a high end processor that is small enough to fit into a pair of glasses. High efficiency battery is also a must to make sure that it can last at least one day.

**Testing**

This is not difficult. First, we will test after the process reaches a certain level. As for the test user, it may be that the staff may start a visit and the people will evaluate the product. Similar to the test clothes for many games, allow some users to experience first, then summarize the shortcomings and improve.

**Time frame**

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| Week | Anything needed to do |
| Week 1 | Drawing design, Prepare materials, Group discussion |
| Week 2 | Making, Group discussion |
| Week 3 | Making, Group discussion |
| Week 4 | Making, Group discussion |
| Week 5 | Making, Group discussion |
| Week 6 | Making, Group discussion |
| Week 7 | Testing, Collect opinions, Group discussion |
| Week 8 | Testing, Collect opinions, Group discussion |
| Week 9 | Improving the product itself based on opinions, Group discussion |
| Week 10 | Improving the product itself based on opinions, Group discussion |
| Week 11 | Improving the product itself based on opinions, Group discussion |
| Week 12 | Improving the product itself based on opinions, Group discussion |
| Week 13 | Improving the product itself based on opinions, Group discussion |
| Week 14 | Advertising |
| Week 15 | Advertising |
| Week 16 | Release |

**Risks**

I think the risk is not just superficial. For example, everyone knows that processors will get hot when they work at high power. If our products are handled improperly, they may burn into the eyes of users and cause irreversible consequences. Risk is called risk because of its unpredictability. If we can predict all the risks, then they can only be called mistakes. In my opinion, we can only do what we can do best, and minimize all risks. This is the only thing we can do. After all, there is no perfect thing in this world.

**Group processes and communications**

Communication is definitely indispensable. From a personal point of view, I prefer to have face-to-face communication. It should be something that is not directly typed on the Internet or can be directly expressed by a call. We need some time for face-to-face group discussions to solve problems more effectively. The meeting may be held once a week because we need some time to resolve the previous issue. Of course not everyone is willing to participate in the exchange. They may be because they are not good at communication or some other reason. I think it's possible to communicate socially so that they don’t feel compelled.