

## GOOGLE GLASS

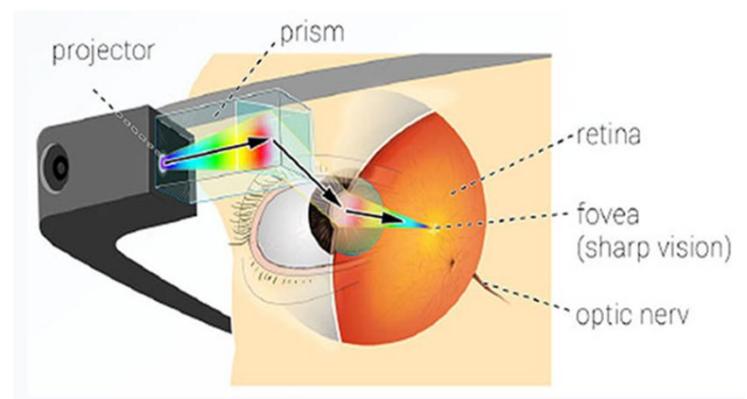
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**Abstract:** - The idea of "GOOGLE GLASS" is a prototype for transparent heads up display which is worn over one eye. It is the first concept of reality wearable eye display by a large company called "GOOGLE". The glass's birth is not only marketing phenomenon but this is the first time glass is used as a technical purpose. Google Glass increases the popularization of Glass which is used for human computer interaction, the wearable eye display. Google glass is known as brain child of GOOGLE co-founder "SERGEY BRIN" in media. The basic purpose of project glass products would be the hands free displaying of current available information in most smart phones. It allows interaction with the internet through natural language voice commands. Google glasses will have the combined features of supplemented reality and simulated reality. Google glass is the useful technology which covers all the sections including disabled and handicapped people.

### I. INTRODUCTION

Google glasses are also called as Google goggles. They are different from any other product out right now. It includes all the functionalities of a computer, smartphone, tablet, iPad, GPS navigation system, camera and all the qualities are inserted in a small piece of glass and unique frame. The goggles have features like "Siri" which will give the information on your screen right away. It is because of its fastest speed and better invisibility to others. Manjoo.com is a website which simply tells us about the hiding of information. It simply states that all the information or data is right in front of you and outsiders will have no idea about it. Few designs for Project Glass is meant to be stuck to a person's existing pair of glasses. Google defines that they are Google glasses, but in fact there is only a small display in front of the user's right eye where they can see a projection of supplemented reality in front of them. There is not actual "display," but the consumer sees is the reality in screen and a virtual reality mixed up. Google glass is not an actual glass so you have the real world in front of your sight. The glasses will be a hit among the users because they do not just come in the generic colors black and white even many others colors are also available, like the smartphones, but all series of colors one being baby blue. It comes in many different colors. Google glasses are comfortable, durable and very light where it does not bother your face. This picture is made by an artist Martin Missfeldt. It predicts that projector and prism both are working together. Instead of this google glass is simply a small object into which projector is inserted with some small computing components. Google glasses are smart glasses. S.M.A.R.T. means Self-Monitoring Analysis and Reporting Technology. These smart glasses are manufactured by hard disk drives; this is because it is the way of increasing the reliability of hard drives. When people think about the

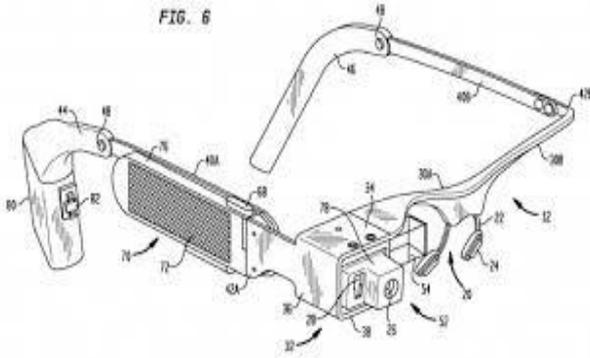
smart technology, the first thing is come in their mind is smart phones because they have all the features of computers and tablets. But the google glasses are far away and much better than smart phones. Google glasses are basically wearable computers which will use the same android features which powers the great smart phones and tablets.



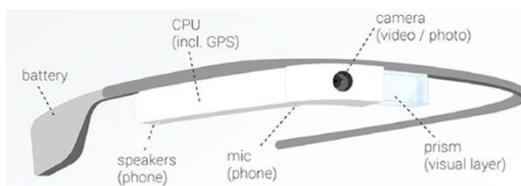
### II. WORKING

Smartphones and tablets are amazing devices which represents a "new era" technology. In the fourth coming years, IPHONE 5S and SAMSUNG GALAXY S5 could be viewed with disdain by the upcoming generation of users wearing smart glasses. Basically Google Glass is a voice-controlled search engine which is aware of your surroundings and signifies what you need before you actually command for it. It is an amazing device which is controlled by voice and it is also hand-free. And there is no use of keyboard, this feature makes it easy to handle. It covers whole world with all related information beamed onto retina by a glass prism from the small projector which is fitted inside the lens. You will be able to see both the physical world and all relevant data which is associated with it, the same information will be stored in pc's, tablets and smartphones, which will stick on another database somewhere, which will be waiting for you to link the dots. The Google glasses disappears the technology from in front of you and displays all the information and data in the form of text. But Google glasses do more than that. If you are searching for street address and premises, then Google glass will let you know plans which are running inside along with a 360° panorama view. If Google Glass gives you the all information, it would be amazing that Google Glasses has the capability to change the game completely. Now Google formally released Google Glass in this year. Google glass head is made up of titanium and band remains same as it is stretched ear to ear. The boundary of glass is covered with plastic casing which hide all the components and gives it a clean look. Glass catches very immediate attention of all

because it has the cube shaped glass prism which sits above the right eye. The resolution of glass is 640x360. Weight of Google glass is just 42 grams including the screen. Google glass wearable technology project has certainly been an amazing adventure to date. Many of us think Google Glass is still nothing more than a toy which sticks on head, but today we have some further proof that Google Glass is not only a toy sticking on head, but also it's a real and ultimately experienced device which integrate an internet connection, a video camera and both a micro projector and a prism into its structure and design. The working of Google Glass is clearly shown by below diagram:



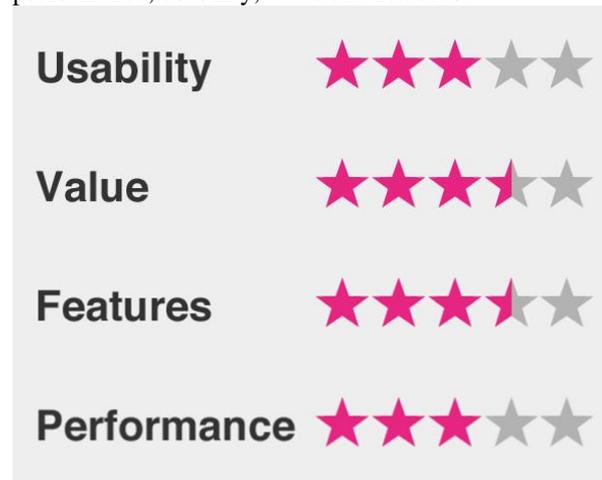
All the above parts are required to make Google Glass and this is shown in above diagram that its inner working is very complicated. Google Glass is very adjustable any fits any face with three sets of nose pads. It provides the picture of 25 inch HD display when it will be viewed from eight feet away. Google Glass is still developing and far away from the production field. Its titanium and extra durability feature maintains its weight and make it light weight. It is announce that Ray Ban and Oakley brands take partnership with Google about the Google Glass. It stores the many bits of pc, CPU, speakers, microphones and battery to which all are collected to a projector and prism regenerates the light onto retina. Ensure to keep the device as light as possible but many processing are done in cloud so that a good mobile broadband signal is necessary.



**III. BENEFITS OF GOOGLE GLASS**

Google has created google glass which is the most amazing glasses and everyone has the dream to wear google glasses at least once. But currently use of google glass is limited. Google glass is slick and comfortable and its amazing feature is that from this we can easily take hands-free pictures. One of the most important functions is its head-tracking navigation. Google glass is working on our commands, for example if we say 'shoot' Glass or 'video', it does exactly the same. Now those days are gone where maps were used to

navigate the world. Google glass automatically search the location after giving the command. And there is no need for car charger. It has ability to connect to the internet via data plans or Wi-Fi. But it is quite big to keep in pocket. By google glass there would be no need to use the television, or a computer and even no need to check the news or news related weather or watch a movie. There is no need for any social interaction in which today's generation spends more than 11 hours a day. Google glass is rated according to the performance, usability, value and features.



And it gets amazing result, which proofs that Google glass is very useful.

**IV. FUTURE SCOPE OF GOOGLE GLASS**

The aim of google glass is to see the world through in eyes. Firstly google glass provides you with plenty of smart phone features, within an "supplemented reality" ecosystems, which in itself sets you up to explore maximum of its capabilities. The benefits of google glass that could be called the sign of the futureare already quite evident. For example : The complete process of getting the directions has become more instintive, the user can view real time translations of something which is being said to you in different language, without any help of key to text and takeit through the translator. Google Glasses is a Google's prototype of a device you wear on your face. Google doesn't like the term "Glasses" because there aren't any lenses. (The Glass team i.e. part of Google's practical labs, also doesn't like terms like "supplemented reality" or "wearable computer", which both have a certain baggage. Google Glass is an innovative, stylish and potentially liberating technology, one set to impact a number of industries. When Glass or similar type of wearable technology are combined with supplemented reality, work, play, learning, commerce and even combat will undergo a predefined transformation. Google glass you wear on your face, and that fundamentally transforms all the human-computer interactions, making them more understand. Because you don't use your hands and as it projects an image onto a transparent screen suspended in front of your eyes and it uses a vibration that stimulates your inner ear. Google has said that eventually, Glass will have a

cellular radio, so that it can get online, at this point, it hooks up wirelessly with your phone for an online connection. And the amazing thing is, this slim thing is a prototype. It's only going to get smaller in future generation i.e. its size will be reduced.

#### V. LEGAL AND ETHICAL ISSUES/ SECURITY CONCERNS

Just Google Glass comes with benefits, but it is with its equal share of legal and ethical issues and security concerns. Many people says that Google Glass does not come with any new and unique privacy issues, but according to the Google it has already good and unique privacy settings. Because all the existing issues are almost based on the new technology as compared to smart phones, tablets and computers. Even these gadgets have the most common problem is to hang the phone too much at times. By Google Glass all questions are come up with appropriate answers on Google. Even though Google Glass is a voice command device, many people are still in confusion as how to best protect and mange best privacy settings. Because Google Glass has a facial recognition features so security questions are definitely arises in a manner of taken hands-free pictures. Although Google has announced for several years that we won't add facial recognition feature to the Google products without having best privacy settings even that people has security concerned issues about Google Glass. But Google Glass is very expensive so middle class people can't even think to buy this product. Battery life of this product is very poor because even 1 day full charging is not sufficient for one day use of it . And 5mp pictures good lightning so that quality of pictures are good and improve. There are limited number of apps are installed in Google Glass. Wearing Google Glass over a eye full day has defected the eye sight also. If you want to buy Google Glass then you must have atleast 18 years old, because of some rules and legal issues. It is big ti carry in a pocket and handles very carefully. Storage of Google glass is upto 16gb but 14gb is useable because 4gb memory is taken by the inbuilt softwares. Google Glass is fully synced with Google cloud storage. In Google Glass there is no need to use the headphones.

#### VI. CONCLUSION

The idea of Google Glass product is definitely bring a change in lifestyles of individuals. Before several years Society was feeling nervous for the use of first television and first computer but now slowly became more accepting and make a need for life. So the same has to done with this product but the first thing is society will need to change their minds and be open-minded for this product so they able to use it with full benefit. Surely Google Glass will be the next very big, unique and useful thing for centuries to come. People should be get interacting regarding this product so they became more aware about this. The main scary is only the security issues and privacy setting will come in consumers mind. Google glass is the newest and unique technology in recent times. Google glass will surely be a very unique and new development in the field of information technology. Google

glass's amazing and ultimate goal which will be achieved and will motivate and encourage more technology dapartments.

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