

# Sixth Sense Technology

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**Abstract:** Technology which can be used by making gesture with the help of wearable components in the physical world around us with the help of information which is present in a form of application with simple hand gestures is called Sixth Sense Technology. This is also called a wearable computing components from which people will see the world in a different way. One of the main component of sixth sense technology is internet without internet it would not be possible to connect the dots between the technology. What sixth sense technology does is that we should have a component with the help of component and internet connectivity it recognizes the object around and displays the information that we want to have from the object. Sixth sense technology makes things easier and better understandable in the little time. Things we need for sixth sense technology to work are: a mini projector, a mobile, a mirror a camera and color markers. Combining all these things and hand gestures make sixth sense technology. It is different from any other technology and it makes you interact with things in most efficient and direct way. You can look at this paper if you want the general idea of sixth sense technology.

**Keywords:** Sixth sense technology, projector, camera, color markers, microphone and gestures.

**INTRODUCTION:** Just like hospitals, cinemas and Grocery marts sixth sense technology is also everywhere and its potential is not limited

it can be used everywhere where humans needs and makes their work easy because of that this technology is innovating day by day in the world and because of sixth sense technology computer sizes are decreasing and only a wearable gesture is needed to compute the tasks. Sixth sense technology is first developed in 1994 to 1997 by the scientist named Steve Mann in MIT Media Lab after the idea comes in minds further innovation takes places and after 12 years in 2009 a hardware and software version were built by the scientist named Pranav Mistry where he introduced a wearable gesture through which objects are recognized and a software through which the object is analyzed and according to that result is displayed. In hardware section we have a headworn camera and projector also including colored types which is worn in fingers so that we can makes gestures from it and a device named EyeTap which is also developed by Pranav Mistry.

After this presentation it revolutionize the world with technology with a new aspect. This technology is not expensive and can be used by more people around the globe.

**Components:** There are six components of sixth sense technology are:

**Camera:** It is the key component of the technology because it captures the object of the scene which can be colored tapes or hand gesture.

**Projector:** It stores and project the information which is analyzed on the object of the device.

**Colored Tapes:** There are different color of types which are red, green, blue and yellow which can be worn and used in the gestures.

**Mirror:** It works on projecting the images on the surface which are coming from the projector. It does not need any external source for the framework simply a flat mirror makes work done.

**Smart Phone:** It is needed to process the images which are captured from the camera and for internet connectivity.

**Microphone:** Generally microphones are optional in the technology, we only use microphone when we needed to have sound signals for the information.

### **Working:**

- User wears the colored tapes on the finger tips so that it is easy to have input to the system.
- The camera captures the gestures made by the user at the fixed frame rate which was after analyzed by the camera hardware.
- Mobile captures the data which was stored by the camera and analyze through internet what outcome to be made from it.
- Projects projects the analyzed information which was came from the mobile phone.
- The projected image is transferred to the mirror and projects back to the perfect desired places which can be any flat surface.

### **Applications:**

**Translating Language:** It can be used for translating language just put the mobile on the surface and after the object is identified by the mobile to translates back to the language we need.

**Taking Pictures:** It is very easy to take pictures just keep the smart phone to the object we needed to capture and click it analyzes and get the images on the mobile phone.

**Reading Books in multimedia experience:** Sixth sense has a cool feature of projecting images so if we want to read books or magazines we can simply project those pages to any surfaces it can be a table or a hand palm which is an interactive way to read books.

**Counting Calories:** We can count calories while working out in the gym or in the park by running which makes easy to reach at a certain task having a proper record of it.

### **Advantages:**

- The way of interaction with the customer makes it more easy to use and having fun with it.
- It is user friendly to the customer so that it can be used by children also and adult also.
- It can give your information in real time rather than wait for a long time.
- Other than computers it can be taken anywhere user wants which makes it comfortable to use.

**Disadvantages:**

- Number of hardwares can give problem to the user.
- It is not cost efficient and not all users can take the benefit of it.
- Processing of images can take long time because of complexity
- It any one of the component fails to work then it can be very difficult to repair.

**Conclusion:**

Sixth sense technology is a future technology which used all fields of works for example: it can be seen in hospital and even seen in military so it makes everything quick and responsive. Today everyone uses this technology in every field of work. This technology is so spread out even if we try to figure out where it is using we can have a

difficult time. So things keep in mind we need to work more on this technology to get fully use of it because if we see we don't have that good internet connectivity around the world we have to fix that and we also need to minimize the components need in this technology and try to compact things as much as possible so it should be minimized.

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