

STUDY ON SIXTH SENSE TECHNOLOGY

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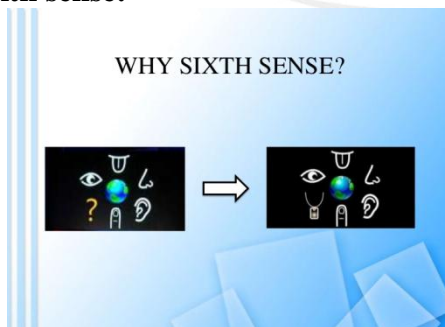
Abstract: The Sixth Sense Technology develops digital information into the physical world and its objects making the whole world your computer. It can turn any surface into touch screen for computing, governed by simple hand gestures. It is not a technology which is aimed to replace human habits but causing computers and machines to focus to human needs. It encourage multi user. Sixth Sense device is a mini-projector coupled with camera and a smart phone which acts as a computer and your connection to the cloud, all the information saved on the web. The Sixth Sense prototype can be used to implement many applications that have show the usefulness, viability and flexibility of the system.

Keywords: Camera, Projector, Colour Maker.

I. INTRODUCTION

Sixth Sense is a wearable gestural interface the physical world around us with digital information and let us use natural hand gestures to interact with that information. It was developed by Pranav Mistry, a PhD student is a Fluid Interfaces Group at the MIT Media Lab. Sixth Sense bridges the gap by bringing intangible, digital information out into the tangled world, and allowing us to interact with this information via natural hand. Sixth Sense comprises a projector, mirror and camera. The hardware components are coupled a pendant like mobile wearable device. A software that process the data is collected by capturing device and product analysis. The software that is used in sixth sense device is open source type.

Why sixth sense: -



Camera: Camera captures an object in view. It transfers the data to smart phone. It acts as a digital eye. It connecting us to the world of digital information.

Projector: The projector itself contains a battery insidewith 3 hours of battery life. A tiny LED projector displays data sent from the smart phone on any surface in person.

Mirror: The usage of mirror is similar to projector dangles pointing downwards from the neck.

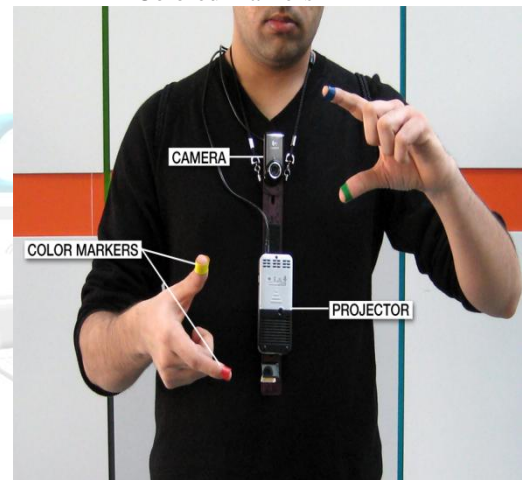
Smart phone: The web enabled smart phone in the user's pocket process the video data. Other software searches the web and interprets the hand gesture.

Color markers: It is at tip of the user's fingers. Marking the user's finger with red, yellow, green and blue tape helps the webcam recognize gestures.

II. COMPONENTS

The hardware components are coupled in a pendant like mobile wearable device

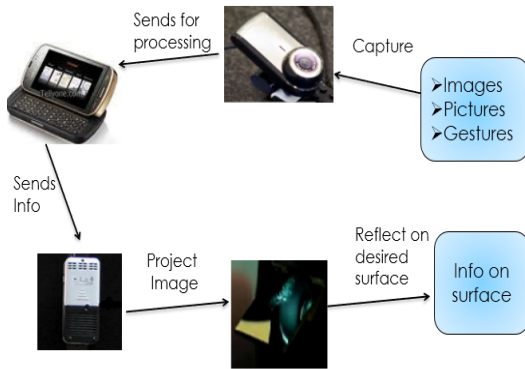
- ✓ Camera
- ✓ Projector
- ✓ Mirror
- ✓ Mobile component
- ✓ Colored markers



How it works:

- The hardware that makes the Sixth Sense work is a pendant like mobile wearable interface.
- It has camera, mirror and projector is connected wirelessly to a Bluetooth smart phone that share comfortably into one's pocket.
- The camera recognizes individuals, images, pictures and gestures one makes with their hands.
- Smartphone is used to send information for processing.
- The downward facing projector projects the output image on to the mirror.
- Image reflects image on to the desired surface.

HOW IT WORKS?



anyway we need. The sixth sense prototype implements several applications that demonstrate the usefulness and flexibility of the system. The potential of becoming the ultimate “transparent” user interface for accessing information about everything around us.

REFERENCE

- [1]. <https://en.wikipedia.org/wiki/SixthSense>
- [2]. www.pranavmistry.com/projects/sixthsense
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Application:

- Make a call.
- Call up a map.
- Check the time.
- Create multimedia reading.
- Drawing application.
- Zooming features.
- Get product information.
- Get book information.
- Get flight updates.
- Feed information on people.
- Take pictures.



Advantages:

- ❖ It is portable.
- ❖ It supports multi-touch and multi-user interaction.
- ❖ It is cost effective.
- ❖ Mind map the idea anywhere.
- ❖ It is an open source.

Future prospect:

- To get rid of color markers.
- To have 3D gesture tracking.
- To apply this technology in various aspect like gaming, education etc.
- To make sixth sense work as fifth sense for disabled person.

III.CONCLUSION

Sixth Sense recognizes the objects around us, displaying information automatically and letting us to access it in