INTRODUCTION

This is a wearable gestural interface that augments the physical world around us with digital information and lets us use natural hand gestures to interact with that information.

REQUIREMENT

- **Software Requirement:**
  - ✓ Python IDE
  - ✓ Opencv
  - ✓ Disk Imager
  - ✓ Raspbian OS
- **Hardware Requirement:**
  - ✓ Raspberry pi 3b
  - ✓ Pi Camera
  - ✓ Display
  - ✓ Power Bank

Working

This is a wearable gestural interface that augments the physical world around us with digital information and lets us use natural hand gestures to interact with that information.

Every one of us is aware of the five basic senses – seeing, feeling, smelling, tasting and hearing. These senses have evolved through millions of years. Whenever we encounter a new object/experience our natural senses tries to analyse that experience and the

information that is obtained is used to modify our interaction with the environment. But in this new age of technologies the most important information that helps one to make right decision is something that cannot be perceived and analysed by our natural senses. That information is the data in the digital form, and it is available to everyone through sources like internet. This concept is an effort to connect this data in the digital world in to the real world. Although miniaturized versions of computers help us to connect to the digital world even while we are travelling there aren't any device as of now which gives a direct link between the digital world and our physical interaction with the real world. Usually the information's are stored traditionally on a paper or a digital storage device. This technology helps to bridge this gap between tangible and non-tangible world.

It contains a raspberry pi (computing device), a display and a camera contained in a box like container which you can attach to any type of glasses. Both the display and the camera are connected to a computing device (in our case-a Raspberry-pi) in the user's pocket. The Display shows visual information directly on the user's eyes (like google glasses); while the camera recognizes and tracks users' hand gestures and physical objects using computer-vision based techniques. The software program processes the video stream data captured by the camera and tracks the locations of the fingers. The movements are interpreted into gestures that act as interaction instructions for the application interfaces.