Smart Glass

Anjali Singh[1] Arpit Kumar Sangal[2] Mr Varun Goel[3]
[1,2]UG Student [3]Assistant Professor
[1,2,3]Department of Information Technology
[1,2,3]Maharaja Agrasen Institute of Technology, Delhi, India

Abstract— These days innovation has turned out to be imperative piece of our life, our general public. Consistently, another innovation comes up each and every day like Keen GLASS. It is an innovation which is utilized by Google as of late. In this innovation Google made a shrewd display which had a screen on one side which gives data like notice, caution, message, climate figure and so forth. Smart glass is something beyond wearables or another age of PDAs. They are not simply the "EyePhones". Smart glasses are 'the following huge thing' in the media innovation. They resemble normal glasses in wearing which consolidate the virtual data with the physical data in a client's view.

Key words: Smart Glass, Internet of Things, ESP8266, Microcontroller, Arduino IDE, OLED display

I. INTRODUCTION

The idea of Web of things (IOT) is between systems administration of physical gadgets, vehicles , smart gadgets, structures, and different things installed with hardware, programming, sensors, actuators, and system availability, so these items can gather and trade the information.

Web Of Things will grow and enhance information by interfacing billions of gadgets fit for sharing, accepting, and breaking down monstrous measures of it with the goal that better business needs can be met and enhance basic leadership.

Primary thought behind the brilliant glass is to make correspondence more viable. Around 20-25 years prior individuals used to send letters, after some time message came to presence, at that point phone and now versatile is normal, now what is straightaway. The basic and straight answer is brilliant wearable like glass, watch and so forth.

These glasses are the up and coming age of the correspondence, which will be the subsequent stage towards IOT.

II. ABOUT THE DATASET

Information comprises of Programming interface from Open Weather Maps Programming interface.

From this Programming interface all information (day, date, time, weather conjecture) is taken.

III. LITERATURE SURVEY

Straightforward presentation of IOT and its application is given by the paper. IOT has gotten much consideration from researchers, enterprises and government everywhere throughout the world for its new and advance innovation to make the life of individuals less demanding and comfortable. IOT can possibly change the present day living. IOT is billion of sensors associated with the web through remote and other correspondence advances. Keen Glass utilizes IOT in recovering information from web as it requires date and investment from the web.

IV. SYSTEM DESIGN

A. ESP8266 MICROCONTROLLER:

ESP8266 microcontroller is a minimal effort inbuilt Wi-Fi microchip with full TCP/IP stack and microcontroller. This little module enables microcontrollers to interface with a Wi-Fi system and make straightforward TCP/IP associations. Be that as it may, at the time there was no English-dialect documentation on the chip and the directions it acknowledged.

The simple low cost and the way that there were not very many outside segments on the module, which proposed that it could in the end be exceptionally reasonable in volume, pulled in numerous programmers to investigate the module, chip, and the product on it.

Features of ESP8266 Microcontroller:

1) 32-bit RISC microprocessor
2) 32 KB instruction RAM
3) 32 KB instruction cache RAM
4) 80 KB user-data RAM
5) 16 KB ETS system-data RAM
6) 16 general input output pins
7) Integrated transmitting and receiving signal
8) WAP/WAP2 Authentication
9) Inbuilt Wi-Fi

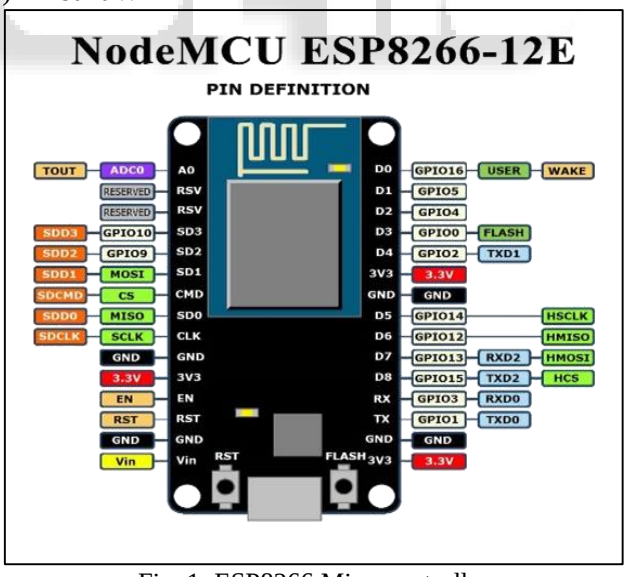

Fig. 1: ESP8266 Microcontroller

B. OLED Display

OLED show (Natural Light Radiating Diodes show) is a level light transmitting innovation, which is made by putting a progression of natural thin movies between two conductors. A brilliant light is discharged when electrical flow is connected. OLEDs are emissive showcase that don't require a backdrop illumination as are more slender and more proficient than LCD shows.

OLED shows are thin and productive as well as they give the best picture quality ever and they can likewise be made straightforward, adaptable, foldable and stretchable later on. OLEDs speak to the fate of presentation innovation.

OLED (Natural Light Transmitting Diode) Presentations are more splendid, having higher difference shows that have quicker reaction times, more extensive review points, less power utilization than regular VFD, Drove or LCD Showcases and furthermore they are self-enlightening.

Fig. 2: OLED Display

V. SOFTWARE

A. ARDUINO IDE:

Arduino integrated improvement condition (IDE) is a cross-platform application (for Windows, Mac OS, Linux) that is written in the programming language Java is utilized for programming of the task. The open-source Arduino Programming (IDE) makes it simple to compose code and transfer it to the board.

B. Application

Being extremely cost effective, costing musc not as much as google glass, this is an exceptionally handy, easy to utilize brilliant wearable. Utilizing OLED Show, it shows data in high caliber to client influencing him to do his work all the more productively without aggravation, superimposing computer generated reality with world.

VI. CONCLUSIONN

With how quick the present age is currently moving, it was predictable that something like the Smart Glass will in the long run come around. Having a wearable gadget with an all the more amazing PC framework and fantastically less expensive sticker price than the entire Apollo mission is an extraordinary approach to look at and demonstrate how far innovation has come. The Google Glass with its date and time highlights and climate estimate may be far to go with regards to legitimateness and social acknowledgments yet it has certainly officially got things started and raised concerns.

REFERENCES

[1] Lv, Z., Feng, S., Feng, L., & Li, H. (2015, March). Extending touch-less interaction on vision based wearable device. In Virtual Reality (VR), 2015 iEEE (pp. 231-232). IEEE.
[2] Wright, R., & Keith, L. (2014). Wearable technology: If the tech fits, wear it. Journal of Electronic Resources in Medical Libraries, 11(4), 204-216.
[3] Amft, O., Wahl, F., Ishimaru, S., & Kunze, K. (2015). Making regular eyeglasses smart. IEEE Pervasive Computing, 14(3), 32-43.
[4] https://en.wikipedia.org/wiki/OLED
[5] https://www.youtube.com/watch?v=pkB1Nahi-X0
[6] https://www.espressif.com/en/products/hardware/esp32/overview
[7] https://en.wikipedia.org/wiki/ESP32
[8] OpenWeatherMap.org
[9] Zhang, L., Li, X. Y., Huang, W., Liu, K., Zong, S., Jian, X., ... & Liu, Y. (2014, September). It starts with igaze: Visual attention driven networking with smart glasses. In Proceedings of the 20th annual international conference on Mobile computing and networking (pp. 91-102). ACM.

