

A Review Paper Design and Development of a Smart Mirror Using Raspberry Pi

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Abstract- In Today Society Information Is Available To Our Phones, Our Laptops, Our Desktop And More. The One That Concerns The Common Man Is Now It Can Be Used To Make Day To Do Life Easier And Faster. This Paper Design And Development Of A "Smart Mirror" With Use Home, Industries, And Platforms. This Project Which Would Collect Real World Machine Data And Data Would Be Transmitted From The Machine And Managed By The Raspberry Pi Board. This Project Is Used By Raspberry Pi3 Version Model-B. This Smart Mirror Is Latest Version Of Raspberry Pi. This Mirror Is Developed By Multimedia Futuristic Smart Mirror. The Mirror Is Implemented As A Personalized Digital Device With Peripherals Such As Raspberry Pi, Microphone, Speaker, Ledmonitor With Reflected One Way Mirror Provides Most Basic Common Such As Weather Of City, Updates Of News And Headlines Corresponding To Location. The Mirror Is Implemented As A Personalized Monitor With Reflected One Way Mirror Provides Most Basic Common Such As Weather Of The City, Updates Of News And Headlines Corresponding To Locations. The Mirror Is Implemented As A Personalized Digital Device With Peripherals Such As Raspberry Pi Microphone, Speaker, And Ledmonitor With Reflected One Way Mirror Provides Most Basic Common Such As Weather Of The City, Updates Of News And Headlines Corresponding To Locations. This Mirror Is Ability To Display Date And Time The Current Weather Condition outside Temperature. This Feature Of The Mirror Will Be Scraped From The Internet And Implemented Using Raspberry Pi Board.

Keyword: Smart Mirror, Iot, Raspberry Pi3, Node Mcu, Led Monitor, Weather, Time, News.

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I. Introduction

The World Around Is Constantly Changing. Interactive Computing, With Wirelessly Connected Device That Are Being Used In Various Day To Day Activities, Are Changing And Improving The Standard Of The Quality Life. Based On This Interactive Computing And Communication Technologies, Many Devices/ Products Are Now Emerging And With This Multimedia Intelligence It Is Providing Comfortable, Secure And Convenient Personal Services And Making A Lot Of Users Comfortable. We Have Smart Cities, Smartphones, Smart Cars, And More. This Fast Way Of Life Requires. The Developments Of Home Automation Projects. The Smart Homes Which Will Automatically Close Or Open Windows Based On Weather Conditions Outdoors.

This Paper Presents The Implementation Of A Smart Mirror Using Raspberry Pi. A Smart Mirror Is Capable To Displaying Time, Date, Weather And Cloud. The Many Benefits Of Using A Smart Mirror It Make Life Easier As Need To Look At Phones Every Time We Need To Check Time, Weather Is Also Reduced. The Smart Mirror Help In Developed Smart House With Embedded Artificial Intelligence Finding Application In Industries. We Look At The Mirror Daily And Internet With It Psychologically To Find Out How We Look And How Our Attire Is. The Interactive Mirror Is Develop The Mirror With Proper Embedded Intelligence For Offering Feature Such As Weather Of City, Latest Updates Of news And Headlines And Local Time Corresponding To Location.

II. Related Work

The Smart Mirror Represents A Natural Interface That Facilities Access To Personalized Services. This Is An Attempt To Contribute To This Design Of A Smart Mirror Like Interface As Well As The Smart Environment In Which The Interface Is Used For Interaction On The Following.

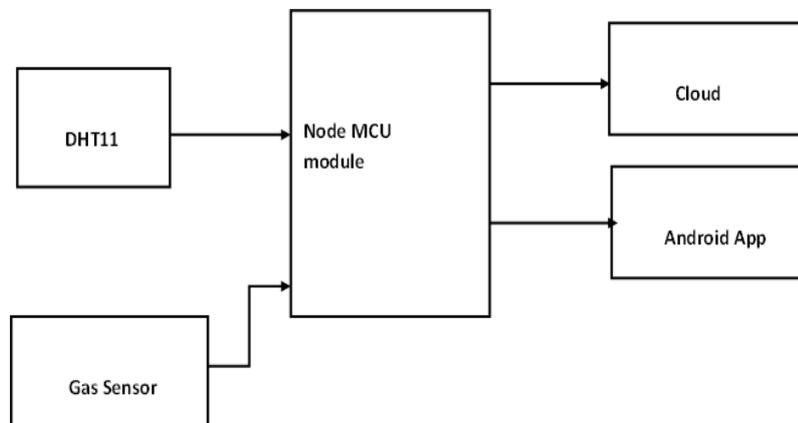
Phillips Homelab Is A Testbed For Creating Perspective And Context-Aware A Home Environments Intelligent Personal Care Environment Uses An Interactive Mirror In The Bathrooms To Provide Personalized

Care Environment Uses An Interactive Preferences. For Example, Children Can Watch Their Favorite Cartoon While Brushing Their Teeth. The Mirror Can Provide Live Tv Feeds Monitor The Latest Weather And Soon. The Mirror Is A Combination Of One Or More Lcd Flat Screen Display Specifically Combined With A Mirror Surface And Connected With A Central Processor To Provide The Intended Services. The Interactive Mirror Service As A Provide Ambient Feeling In The Home Environment. The Work In Propose A Magical Mirror As An Interface To Provide Basic Services. The Intended Services To Offer Are Interactive Tv, Specific Weather, Date And Searches. Unlike Our Work, It Promotes The Use Of Ontology To Personalize The Services. However Conceptually, Our Work Has Similar Objectivity To What The Magical Mirror Intends To Perform, Except That We Present A Working Prototype, Whereas Some Of The Functionalities In The Magical Mirror Are Presented Only The Simulation. In Addition, We Use Open Standard Like Web Services To Communicates With The Devices And Customize Various Personalized Services For Users. This Is Not Present In Design Of The Magical Mirror. In Comparison To The Works Described Above, Our Works Is Different In That We Aim To Develop A Working System For Providing Services In The Ambient Home Environment Based On Open Stands And Off The Self-Technology, Where The Smart Mirror Is The Interface To Access/Control Various Data Feeds, Various Informationserved.

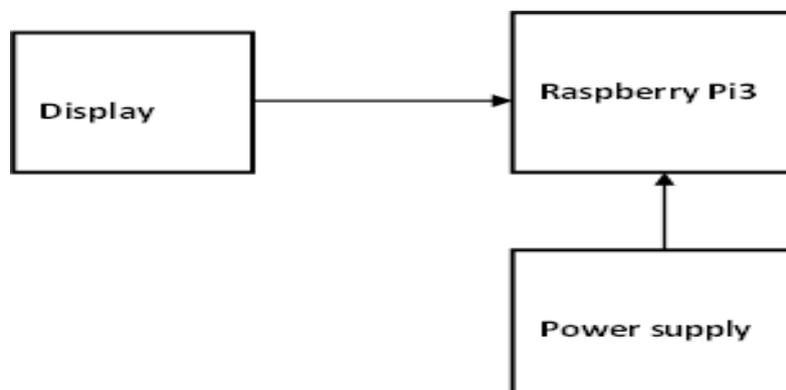
III. Literature Survey:

The Method Is Used To Develop Smart Mirror Have Evolved. The Most Popular Is Internet Of Things (Iot).Each Idea Is Nearly Same But The Minor Difference In It. Iot Is Our Basic Part For Designing A Smart Mirror Is With Node Mcu, Raspberry Pi, And Temperature And Humidity Sensor. The Implementation Of Iot Is Possible With A Cloud.

IV. Proposed Work:

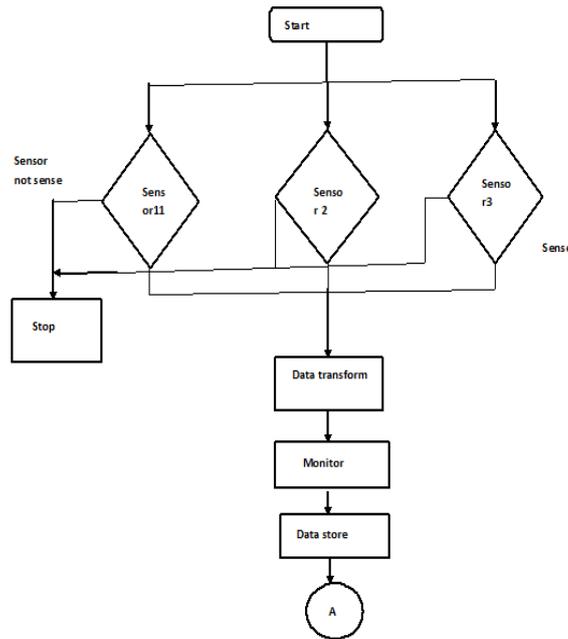


Block Diagram Of Transmitter

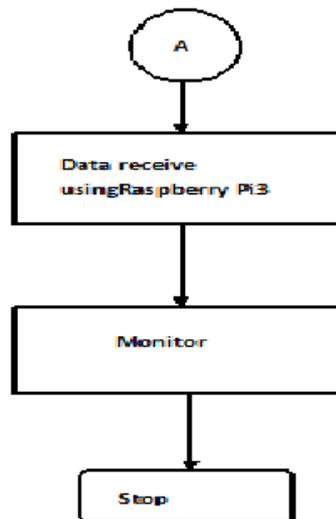


Block Diagram Of Receiver

Flow Chart:



Flow Chart For Transmitter



Flow Chart For Receiver

V. Innovativeness Of Proposed Solution:

Thesmart Mirror Peripherals Such As Microphone, Smart Mirror, Cpu, Raspberry Pi Led Monitor With Provide Features Such As Weather Of The City, And Headlines To The Location, Latest Updated News.

VI. Social Impact Of Proposed

Solution:

It Is Useful To See The Latest Update, Headlines In Less Time There Is No Need To Start A Television. Also We Get The Information About Weather Of The City. Also By Using Smart Mirror We Can Able To See The Videos.

Advantages:

Less Time Required To See The News. It Offering Features Such As Weather Of The City, News, Headlines.

It Makes Day To Day Easier And Faster.

Applicatins:

In Industries.
In Home Automation.
In Hospitals.

VII. Conclusion:

We Have Designed Futuristic Smart Mirror That Provides Natural Interaction Between Users And The Ambient Home Services. The Mirror Display Is Provided By A Flat Led Display Monitor Which Display All The Necessary Information Which Are Useful For The User. The Mirror Also Provides A Picture-In-Picture Sub-Display To Facilitate The Display Of Services Such As Maps, Videos Via Youtube.

Future Scope:

In Our Future Work We Will Investigate How The Surrounding Context Of The User And The Environment Can Be Utilized In Order To Provide Optimal Service Experiences In The Home Environment. The System Can Be Made Much More Useful To The Users By Adding More Functionality Like Integrating Light Settings, Speech Processing, Etc.

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