Raspberry Pi Home Automation Projects or domotics is building automation for a home, called a smart home or smart house. A home automation system will control lighting, climate, entertainment systems, and appliances. It may also include home security such as access control and alarm systems. When connected with the Internet, home devices are an important constituent of the Internet of Things.

A home automation system typically connects controlled devices to a central hub or “gateway”. The user interface for control of the system uses either wall-mounted terminals, tablet or desktop computers, a mobile phone application, or a Web interface, that may also be accessible off-site through the Internet.

Under given is the fresh list of home automation projects, it contains a part of home automation or complete project.

1. **The system is designed to detect intrusion (unauthorized entry) into a building or other area. Step 1: Things Used in This Project**
   - Hardware components KEMET Electronics Corporation Proximity Sensor- Pyroelectric...

2. **I made a power strip that has 4 independently switchable outlets from a raspberry pi and other materials that I mostly had sitting around. The raspberry pi is running Homebridge...**

3. **1.1 Introduction** This project will be a home alarm system. It will be made using a Raspberry Pi, an RF receiver, some RF transmitters. The primary purpose will be to...

4. **1. INTRODUCTION** Global average temperatures have increased alongside increases in population and consumption. These changes pose serious threats to the current standard of living as weather events become less predictable and...

5. **1. INTRODUCTION** The Raspberry Pi is a credit-card-sized computer that allows to let the computer machine apart and develop infinity of possibilities. Raspberry Pi is going to be used in...

6. **Introduction** The following subsections have an overview, motivation, importance, objective, problem analysis, list of requirement and expected results. 1.1 Overview of the project At any moment, you may have a...

7. **Chapter 1 : Introduction and problem statement** : The following subsections have an overview, short description, problem analysis, list of requirement and objectives. 1.1 Introduction Everyone wants to know who...

8. **I. Summary** The purpose of this project is to build a multi-language voice control IoT home automation using Google Assistant and Raspberry Pi. This project will enable the user to...

9. **Introduction** Short description of what was done for the project. The work team has done for the sand flow system is to simulate the motion of sand to realize the...

10. **This project is submitted to Deakin University, School of IT, for Unit SIT210 - Embedded Systems Development. Problem Statement:** Even though there are a lot of security systems that are...
11. Securely open/close your front door with a smart contract. Ever wondered why many consider blockchain to be a game-changer in the IoT space? This example describes how to build a...

12. 52pi ICE Tower makes your Raspberry Pi 4 look like a beast but lacks fan and LEDs controls. I fixed that! The coolest heatsink for Raspberry Pi 4. Improving the...

13. Connecting the motion sensor, alarm and video recording in Home Assistant on Raspberry pi. I'd like to tell you about my little experience of working with Home Assistant (hereinafter —...)

14. Jarvis Farley is a home automation system I created to manage our kid's chores and allowance using blockchain. It also does 99 other things. The World's Smartest Home Featuring Jarvis Farley...

15. Track the 230 VAC power line with your favorite HW using a small, efficient, and inexpensive circuit. In my wireless doorbell tutorial I gave the advice about how to get a digital...

16. Story What I Want to Do: Select the most inexpensive, scalable and easily configured components available. Program and deploy as many temperature sensors as possible and connect to a web gateway. Use...

17. The hydroMazing system manages your growing environment by making localized data-driven decisions so that you don't have to worry. https://youtu.be/9WvtBJmLiU8 It wasn't my intention to make a product. I simply...

18. Get started with TensorFlow object detection in your home automation projects using Home-Assistant. Introduction WARNING: there are currently issues with the Tensorflow integration in Home Assistant, which arise due to complexity...

19. Kindbot packs an app, sensors, voice-control, and state-of-the-art computer vision to eliminate guess work & maximize yields. Watch Kindbot Grow! kindbot.io and Twitter: @Kindbot_io Instagram: @kindbot Plant Diagnosis Service: buddy.kindbot.io Download Buddy for Android! (coming soon to iOS): Go to Google Play...

20. Octopod, a uniquely shaped full automation system that allows you to monitor your industry and keep security with AI and smart RFID locks. There are many IoT automation projects out...

21. Home automation using Raspberry Pi 3B and OpenHAB. [Optional] We will be using Google Home (or Google Assistant) to control the relays. I wanted to completely automate my room. I...

22. Doorbell that integrate a Snips voice assistant to say welcome and record messages from visitor when you are not at home. The Idea Building a Doorbell including a voice assistant...
23. This guide will help you set up Home Assistant. Access it from any web browser and automations. Home Assistant is one of the most versatile and powerful home...

24. An inexpensive open-source home automation solution for low income individuals. Background Today's home automation systems are expensive and often require the ability to install or modify existing hardware in the...

25. The terrain vehicle which is managed with raspberry pi, arduino and controlled via android software. Story At the end of the project we will manage a terrain vehicle which controlled...

26. Using Raspberry Pi 2, Azure, and Voice Assistance (Windows and Android) observe how your home not only gets automated, but also self aware. OVERVIEW: We all know how Home Automation...

27. This project shows how I automatically capture and classify images of birds visiting my bird feeder. Project Introduction Being interested in bird watching, I attached a bird feeder to a...

28. Do you want to controls your TV, DVR and more using RaspberryPi? Story In this chapter I will explain how can we control a TV or almost everything that uses...

29. This project emulates a Philips Hue Bridge that is able to control multiple types of lights. Story This project emulates a Philips Hue Bridge that is able to control Hue...

30. A system to monitor water level, temp, pH, ORP, filter pressure, electrical usage, and pump operation. Refills pool when necessary. Story The Idea Over the summer of 2015 my sons...

31. In this project you can make your own personal Smart Home HUB through which you can add, modify and control all the appliances you want. HUB on Raspberry Pi First...

32. A control panel powered by Raspberry Pi 3 using a touchscreen and Android Things to communicate with Home Assistant over MQTT. Story Overview This project is an MQTT Alarm Control...

33. Control your home power outlet from anywhere in the world using raspberry pi, zigbee and arduino (Azure enabled) Story Introduction In this project we will see how to control the...

34. A Home Automation system using a Raspberry Pi 2 and Windows 10 IoT Core including an App. Story Update 2: The project is still growing and a lot of new features...
35. Let us build a robot that can be controlled using your mobile phone wirelessly over WiFi. Yes; a WiFi Robot using Raspberry Pi. Here, I will be using an App RootSaid...

36. Raspberry Pi Raspberry Pi is small credit card sized, light weight and compact computer available which is used by both professions, hobbyist and of course hackers alike. Raspberry Pi 3...

37. Let us build a home automation system that can control electrical appliances such as lights, fans, gates etc using our mobile phone from anywhere around the world. All you need...

38. In the previous post we showed you how to create a home automation system using MATRIX Alexa. Now we have decided to take it to the next level. He tinkered...

39. In the last post, we build a Robot that can be controlled via Amazon Alexa using MATRIX Voice installed in a Raspberry Pi. In this tutorial, we will install and setup MATRIX Voice...

40. So what all things we have now? A Raspberry Pi, A MATRIX Voice, Alexa configured to work with MATRIX Voice and IFTTT. What to do next? How about some...

41. Telemonitoring Telemonitoring is defined as the use of information technology to monitor patients at a distance. Telemonitoring allows reduction of chronic disease complications thanks to a better follow-up; provides health care services without using...

42. In industrial automation & other areas most of the time, we want data to be viewed at control room or head office with far distance, Thats why i made Raspberry...

43. Octopod, a uniquely shaped full automation system that allows you to monitor your industry and keep security with Al and smart RFID locks. Things used in this project Hardware components...

44. Pi Supply is Kickstartering IoT LoRa Gateway and IoT LoRa Node pHAT add-ons for the Raspberry Pi, as well as a LoRa Node that works with the Micro:bit. An Arduino...

45. Want to use a device that HomeKit doesn't support? Get Raspberry Pi running with Homebridge using Resin OS and change you home forever. Things used in this project Hardware components...
46. Have you ever thought about a speaker which can be controlled by your voice!!! What if we can control our home appliances this way and make these appliances smarter? Voice...

47. Hardware components: Raspberry Pi Zero Wireless × 1 Raspberry Pi Camera module × 1 RF receiver × 1 Wireless doorbell (RF) × 1 Software apps and online services: Home Assistant...

48. Hardware components: Raspberry Pi 2 Model B × 1 PC Monitor with VGA Cable × 1 Wifi Receiver × 1 Two way mirror acrylic sheet × 1 5v Relay Module...

49. Introducing the “Pi Capsule.” It's currently the only Apple Time Capsule you can plug into your TV...does this make it an Apple TV? 😊 Ok, ok, let's say you have...

50. WhatsApp is an instant messaging application originally developed for iPhones. It quickly emerged as a cross-platform messenger application and is now the most popular instant messaging application. Due to projects...

51. Hey guys, first of all I'd like to introduce myself to everyone. My name is Jack, commonly known as Jackk or JackkTutorials over on YouTube where I do technology tutorials...

52. In tutorial will make overview of using heimcontrol platform (is NodeJs application for home automation Open Source under MIT license) Some of there features: Responsive :The responsive design allows you...

53. Hi, in this instructable, I’ll show you how to create a lightweight and incredibly responsive web server with WebSockets. I’ll use it to control a LED using an Arduino but...

54. The best voice recognition software out of three we tested, and how to set it up on Raspberry Pi. On a mission to find the best voice-recognition software for Raspberry...

55. This tutorial, based on the latest Raspberry Pi B+/model 2, will show you to interface a PIR motion sensor with the Raspberry Pi. And also guides you to use the...
Internet connectivity in an integral part of various micro-controller projects, specifically those using the atmega328p with arduino ide/avr-gcc. NRF24l01 modules provide an inexpensive and reliable wireless link. In many projects,...

1 INTRODUCTION In this modern world crime has become ultra modern too! In this current time a lot of incident occurs like robbery, stealing unwanted entrance happens abruptly. So the...

If you found this article after doing a search on Google, welcome! On this website you will find plenty of content around DIY home automation using open-source hardware. Enjoy the article! I have been...

Node-RED is a visual tool for wiring the Internet of Things that can be run on a Raspberry Pi and allows for rapid prototyping of projects. In this tutorial we...

Z-Wave is a wireless communications protocol designed for home automation, specifically to remotely control applications in residential and light commercial environments. The technology uses a low-power RF radio embedded or...

Create your own face tracking, pan and tilt camera on the Raspberry Pi! This tutorial will demonstrate use of the OpenCV (computer vision) library to identify and track faces on...

The Surveillance System this year I planned to travel with my family to China for a few weeks, so we had to leave alone our house. While being on vacation,...

Today we present an expansion shield for Raspberry Pi to control the very effective GSM/GPRS SIM900 and SIM908 (with GPS) modules: in this way it is possible to extend the...

More Raspberry Pi Electronics Experiments – Gertboard and Potentiometer-Controlled LED Cluster Posted on February 3, 2013 by rakanalysis One of the things which alerted me to the potential of the Raspberry...

In the previous article Raspberry Pi - Installing a RS232 Serial Port we discussed how to install a RS232 port on the Raspberry Pi. This is a follow up article...

Home electronics can open up a new dimension in home automation especially when used with an Arduino or Raspberry Pi. There is however a very real danger when using mains...
Introduction IoTSys is an integration middleware for the Internet of Things. It provides a communication stack for embedded devices based on IPv6, Web services and oBIX to provide interoperable interfaces.

The Internet Of Things is the most trending technology today that stands alongside wearables and robotics. It is a very simple concept where devices in our home or wherever they...

Let's make a bluetooth audio receiver allowing you hook up your R-Pi to your stereo and use your phone as the sound source. To be honest, this is not a...

If you build it, they will program. The genesis of the Raspberry Pi came from a few college students concerned about the dwindling number and skills of students applying to...

The title of the article can be as well as 'Let's build robots using stepper motors and the Raspberry Pi,' because everything you need is a good example of where...

If you found this article after doing a search on Google, welcome! On this website you will find plenty of content around DIY home automation using open-source hardware. Enjoy the article! I have been...

A node.js based home automation system based around the Raspberry Pi. For background around this project: Installation To get started, clone the repository and install the required dependencies. git clone...

In this tutorial we will see how to use WhatsApp with Raspberry Pi. We will use the Yowsup library we had already used in these tutorials: WhatsApp message from Phidgets...

Two things have happened recently that have contributed to my tinkering hobby. Firstly - My Raspberry Pi arrived after a long (but worth it) wait. Secondly - My two girls...

Looking for a first project to try out on a Raspberry Pi, I though what better than a Spectrum Analyzer? (Sometimes this display is erroneously referred to as a graphic...

Hi Fellow makers, This is my first Instructable on Home Automation. The idea is to build a controller and wireless nodes to control and monitor. After a lot of hit...

How Does it Work The main brain for this project is Arduino UNO Board along with Arduino Ethernet Shield to give it a wireless connectivity. Arduino runs a code to control...

ITEAD studio is based in Shenzhen, China, which is located with China's biggest electronics market as well as one of the most integrated electronic supply chains in the world. A...

I'm in the process of building a home automation controller using my Raspberry Pi, and I figured it would be cool if it could display the current song and artist...
81. We bought a home with a pool. The first couple of weeks we made several costly mistakes including using the heater to heat the entire pool over 90 degrees. I...

82. In this instructable I will detail my methods for creating a fully custom Home Security and Automation System. This is a work in progress, and as I will be adding...

83. Gardening improves health and quality of life, connecting us to our local environment. Plus, you can eat organic fruits and veggies at very little cost. Yet for all these fantastic...

84. The Bridge Shield is a board for students, hackers & researchers. You can use it along with a Pi or Arduino Uno to create cool DIY projects with ease. This...

85. This instructable should help you set up a DIY home security + automation system that uses 433Mhz door/window sensors, 433 MHz PIR motion sensors and webcams to monitor your home...

86. Overview Many of the previous Raspberry Pi projects I had been working on were based on fairly simple GPIO logic to turn things on and off. Today I wanted a...

87. Overview In a previous article I demonstrated how to build your own Raspberry Pi GPIO testing board that included buttons, slide switches, and LEDs. Since that time, I learned about a...

88. Ever wanted to create a way to control your garage door using your phone maybe collect data and view it from your laptop. There is a single board computer called...

89. We all have at some point of life desired to control everything at the click of a button. May it be turning off unnecessary lights when you are not at...

90. I know what you’re thinking: “How cool would it be if I had my own Google Drive/SkyDrive/Dropbox that I can use whenever I like?” Or maybe you are just getting...
In previous tutorials we used Raspberry Pi to drive Phidgets InterfaceKit. We have also set up a web server on Raspberry. In this tutorial we will use the information gathered...

I had heard about GPIO pins on the raspberry pi and decided to do something with it. And with the holidays coming, wouldn’t it be great to be able to turn on...

I created a forum to collaborate on gateway code. http://homeautomation.proboards.com/board/2/openha... A few years ago, I became a dog owner for the first time. I didn’t like leaving Cody in...

Control relays connected to you RaspberryPi using Android app. Setup multiple RaspberryPi devices around your house. Single device can operate up to 8 relays and all of them are self-discoverable...

In the previous tutorial we saw how you can drive the digital outputs of the Phidgets 1018 remotely, in this tutorial instead we will check the status of the digital...

This project is a combination of several difference resources: My single-outlet control project with Raspberry Pi and Python, originally inspired by user wilq44’s Raspberry Pi GPIO home automation WiringPi, software....

It has become apparent that WebIoPi is not yet compatible with the Raspberry Pi v2. If you are following this tutorial, you must be using the first-generation Pi. The link...

Roboteq launched a Kickstarter project to build an I/O add-in card for robotics navigation that stacks atop a Linux-based Raspberry Pi board. The RIO (Raspberry IO) is based on a...

Components Required Raspberry Pi Sensors - Temperature sensor (DS18B20) 8 Channel Relay (12V/ 7A/ 240 V AC) Bulb (60W)

I. Title and Abstract The Home Automation Framework provides a web interface that allows users to control devices in their home using the browser on a smartphone, tablet, or PC....
102. This project is a combination of several difference resources: My single-outlet control project with Raspberry Pi and Python, originally inspired by user wilq44's Raspberry Pi GPIO home automation WiringPi software...

103. Update 1/14/2014: Thanks to everyone who voted for this project in the Hardware Hacking Contest! Looking forward to my new maker pen. Update 12/31/2013: looking for a more advanced version...