

Alexa (Echo) with ESP32 and ESP8266 – Voice Controlled Relay

In this project, you're going to learn how to control the ESP8266 or the ESP32 with voice commands using Alexa (Amazon Echo Dot). As an example, we'll control two 12V lamps connected to a relay module. We'll also add two 433 MHz RF wall panel switches to physically control the lamps.

Note: this tutorial is compatible with all Echo Dot generations and with the latest fauxmoESP library (3.1.0). It works with ESP32 and ESP8266.

Watch the Project Video Demonstration

[DEMO] Alexa (Echo) with ESP32 and E...



We recommend the following tutorials as a reference:

- [Getting Started with ESP8266 Wi-Fi Transceiver](#)



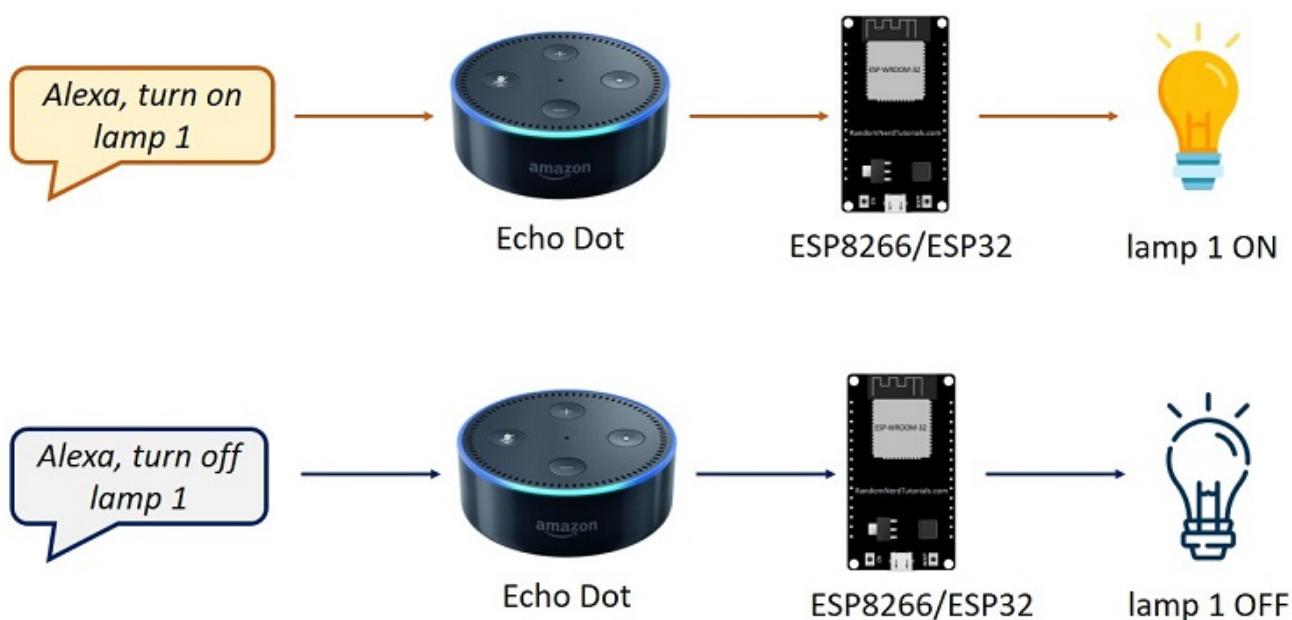
- [Guide for Relay Module with Arduino](#)

Project Overview

This project works both with ESP8266 and ESP32. We provide instructions for both development boards. Before getting straight to the project, read this section to see what you'll achieve by the end of this project.

Control Lamps using Alexa

By the end of this project you'll be able to control two lamps (lamp 1 and lamp 2) with voices commands using Alexa. The figure below shows a high-level overview on how the project works to control lamp 1 – it works similarly for lamp 2.



Alexa will respond to the following commands:

- “Alexa, turn on lamp 1”
- “Alexa, turn off lamp 1”
- “Alexa, turn on lamp 2”
- “Alexa, turn on lamp 2”
- “Alexa, turn on lamps” turns on both lamps
- “Alexa, turn off lamps” turns off both lamps

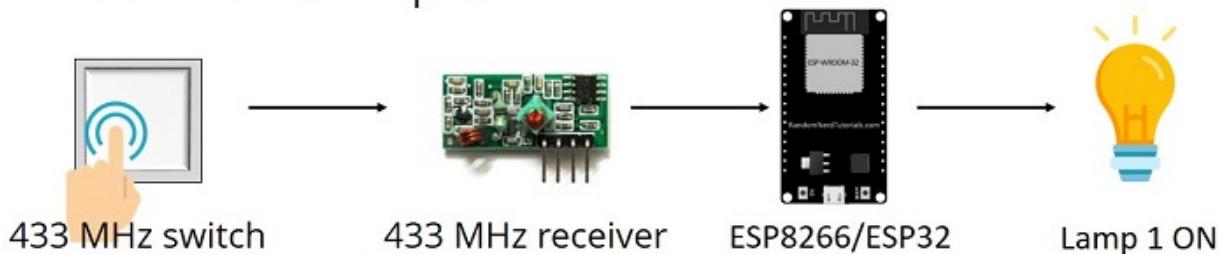
When you say something like “Alexa, turn on lamp 1”, the ESP8266 or ESP32 will trigger a relay to turn on lamp 1. When you say something like “Alexa, turn off

"*Lamp 1*", the ESP8266 or ESP32 will send a signal to the relay to turn off the lamp. This works similarly for lamp 2.

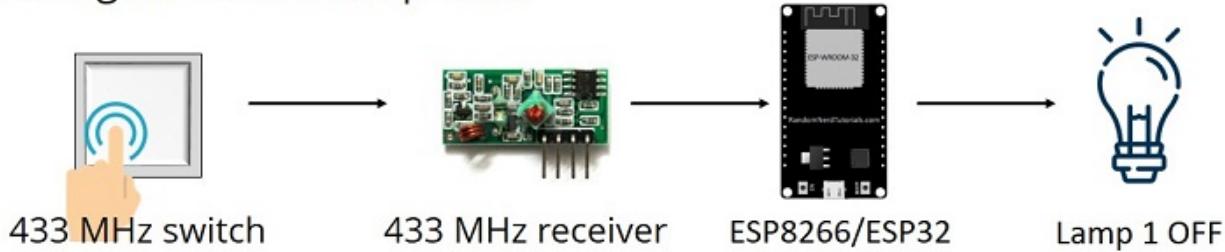
Control Lamps using 433 MHz Wall Switches

In this project, we'll also add two 433 MHz wall switches to physically control the lamps. You'll have a switch for each lamp. The switch changes the lamp's state to the opposite of its current state. For example, if the lamp is off, press the wall switch to turn it on. To turn it off, you just need to press the switch again. Take a look at the figure below that illustrates how it works.

Press switch to turn lamp on...



Press again to turn lamp off...



Parts Required

Here's a complete list of the parts required for this project (click the links below to find the best price at [Maker Advisor](#)):





- ESP Board (you can use either ESP32 or ESP8266):
 - [ESP8266](#) – read [Best ESP8266 Wi-Fi Development Boards](#)
 - [ESP32](#) – we use the [ESP32 DOIT DEVKIT V1 Board](#) – 36 [GPIOs](#) (read [ESP32 development boards comparison](#))
- Alexa – Echo, Echo Show or Echo Dot ([read the next section for more details](#))
- [433 MHz RF Wall Panel Switch](#)
- [433 MHz transmitter/receiver](#)
- [12V 2A power adaptor](#)
- [Step-down buck converter](#)
- [Relay module](#)
- [12V lamp](#)
- [12V lamp holder](#)
- [Male DC barrel jack 2.1mm](#)
- [Stripboard or breadboard](#)
- [Jumper Wires](#)

You can use the preceding links or go directly to [MakerAdvisor.com/tools](#) to find all the parts for your projects at the best price!

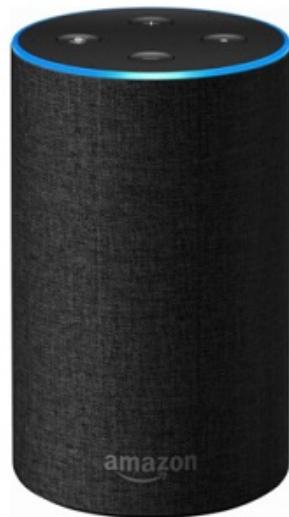


How to Buy An Amazon Echo

You can use the links below to buy an Amazon Echo. There are several models available – all of them are compatible with this project.



**Echo Dot
(2nd Generation)**



**Echo
(2nd Generation)**



Echo Show

Buying an Amazon Echo through Amazon is not possible for all countries. We provide links for Amazon in UK, USA, and Germany. If the Amazon Echo does not ship to your country through Amazon, you can get one from eBay (available worldwide).

Echo Dot (2nd Generation)

- [United States – Amazon.com*](#)
- [Available Worldwide – eBay.com](#)
- [United Kingdom – Amazon.co.uk*](#)
- [Germany – Amazon.de*](#)

Echo (2nd Generation)

- [United States – Amazon.com*](#)
- [Available Worldwide – eBay.com](#)
- [United Kingdom – Amazon.co.uk*](#)
- [Germany – Amazon.de*](#)



- [United States – Amazon.com*](#)
- [Available Worldwide – eBay.com](#)
- [United Kingdom – Amazon.co.uk*](#)
- [Germany – Amazon.de*](#)

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433 MHz RF Wall Panel Switch

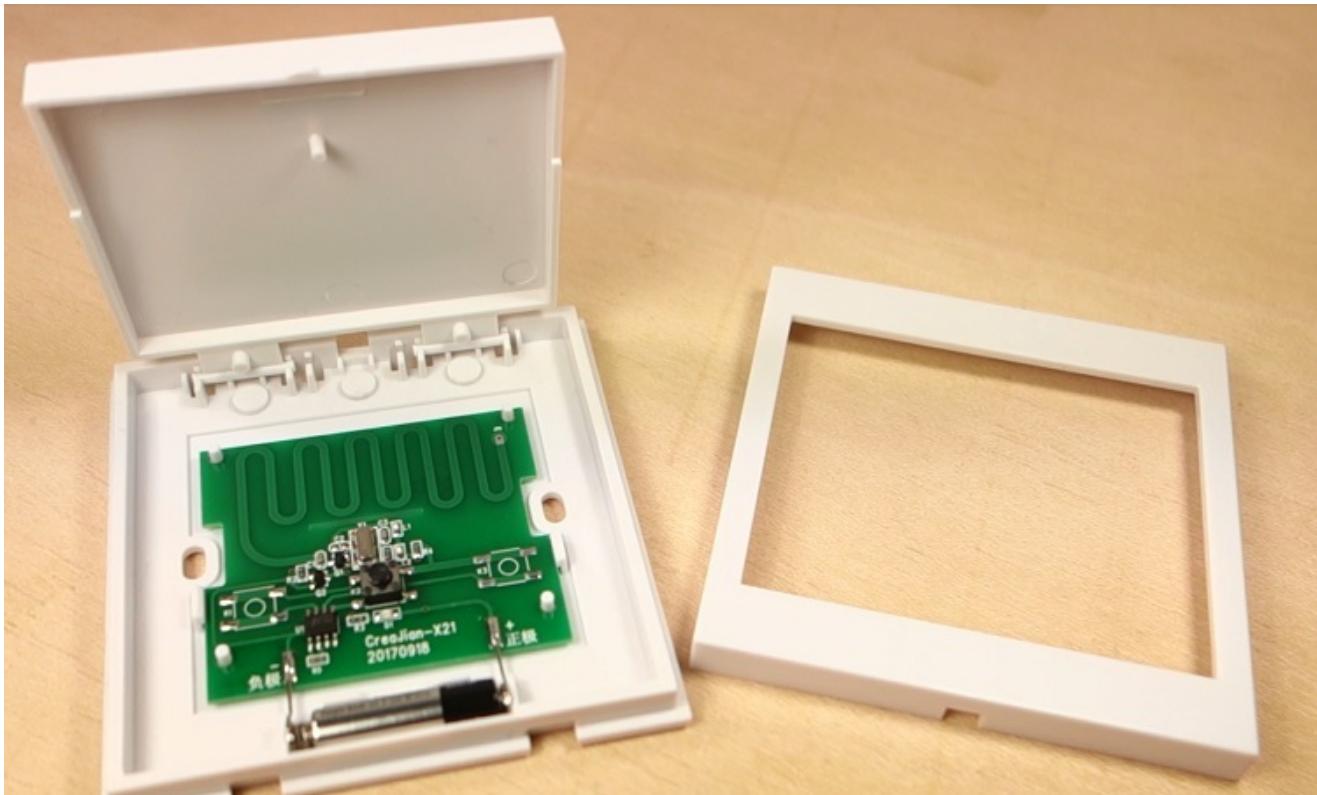
The 433 MHz RF wall panel switch is a great way to remotely control devices. It can be easily attached to a wall with adhesive tape, without the need to make holes on the walls. Additionally, it is wireless, so you don't need to worry about wiring and then hiding cables.

In this project we're using two wall panel switches. Instead, you can use a panel switch with two buttons – there are also another version with three switches.



This wall panel switch has a push button in its circuit, as shown in the figure below, that when pressed emits a 433 MHz signal. You can use that signal to control whatever you want. This wall panel switch uses a 27A 12V type battery





Decode the Wall Panel Switch 433 MHz RF Signals

When you press the 433 MHz wall panel switch, it sends a 433 MHz signal. You need to decode that signal using a 433 MHz receiver. To learn how to decode the 433 MHz signal read the following post: [Decode and Send 433 MHz RF Signals with Arduino](#) – read the “Decoder Sketch” part. The sketch works with Arduino, ESP32, and ESP8266.

Take note of the decimal (24Bit) code for each of your switches, because you'll need them later.

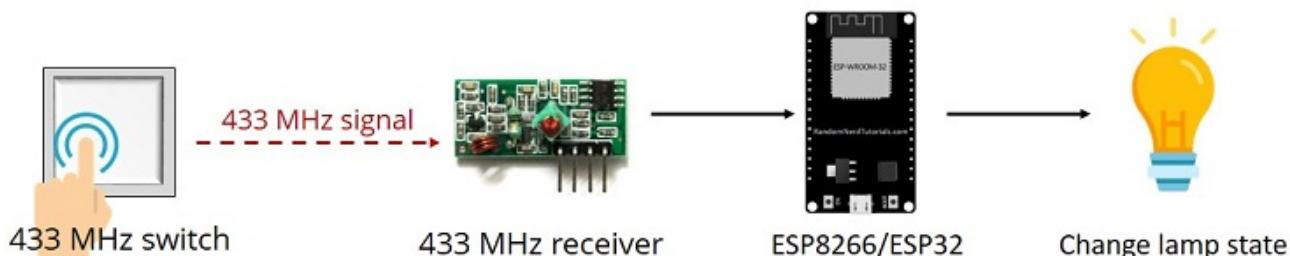
```
COM7
|
Decimal: 6819768 (24Bit) Binary: 01101000000011110111000 Tri-State: not applicable
Raw data: 7946, 252, 781, 781, 268, 783, 269, 252, 784, 781, 271, 252, 784, 252, 784, 252, 784

Decimal: 9463928 (24Bit) Binary: 100100000110100001111000 Tri-State: not applicable
Raw data: 8064, 796, 273, 258, 793, 258, 793, 795, 274, 257, 796, 256, 796, 256, 796, 256, 796
```

Autoscroll No line ending 9600 baud Clear output

- switch 1: **6819768**
- switch 2: **9463928**

You should get different values. You'll then use these signals in your ESP8266 or ESP32 sketch. When you press the switch, it sends a 433 MHz signal. This signal is detected by the receiver that is connected to the ESP. This way, the ESP knows the switch was pressed and it inverts the lamp's current state.



The FauxmoESP

To control your ESP8266 or ESP32 with Amazon Echo, you need to install the FauxmoESP library. This library emulates a Belkin Wemo device, allowing you to control your ESP32 or ESP8266 using this protocol. This way, the Echo or Echo Dot instantly recognizes the device, after uploading the code, without any extra skills or third party services. You can read more about [FauxmoESP here](#).

Installing the FauxmoESP Library

1. [Click here to download the FauxmoESP library](#). You should have a .zip folder in your Downloads
2. Unzip the .zip folder and you should get **xoseperez-fauxmoesp-50cbcf3087fd** folder
3. Rename your folder from ~~xoseperez-fauxmoesp-50ebef3087fd~~ to **xoseperez_fauxmoesp**
4. Move the xoseperez_fauxmoesp folder to your Arduino IDE installation **libraries** folder
5. Finally, re-open your Arduino IDE

Alexa – Echo Dot with ESP8266

Follow these next instructions if you're using an ESP8266.



In order to upload code to your ESP8266 using Arduino IDE, you should install an add-on for the Arduino IDE that allows you to program the ESP8266 using the Arduino IDE and its programming language. If you haven't installed the ESP8266 add-on for the Arduino IDE, follow the next tutorial:

- [How to Install the ESP8266 Board in Arduino IDE.](#)

Installing the ESPAsyncTCP Library

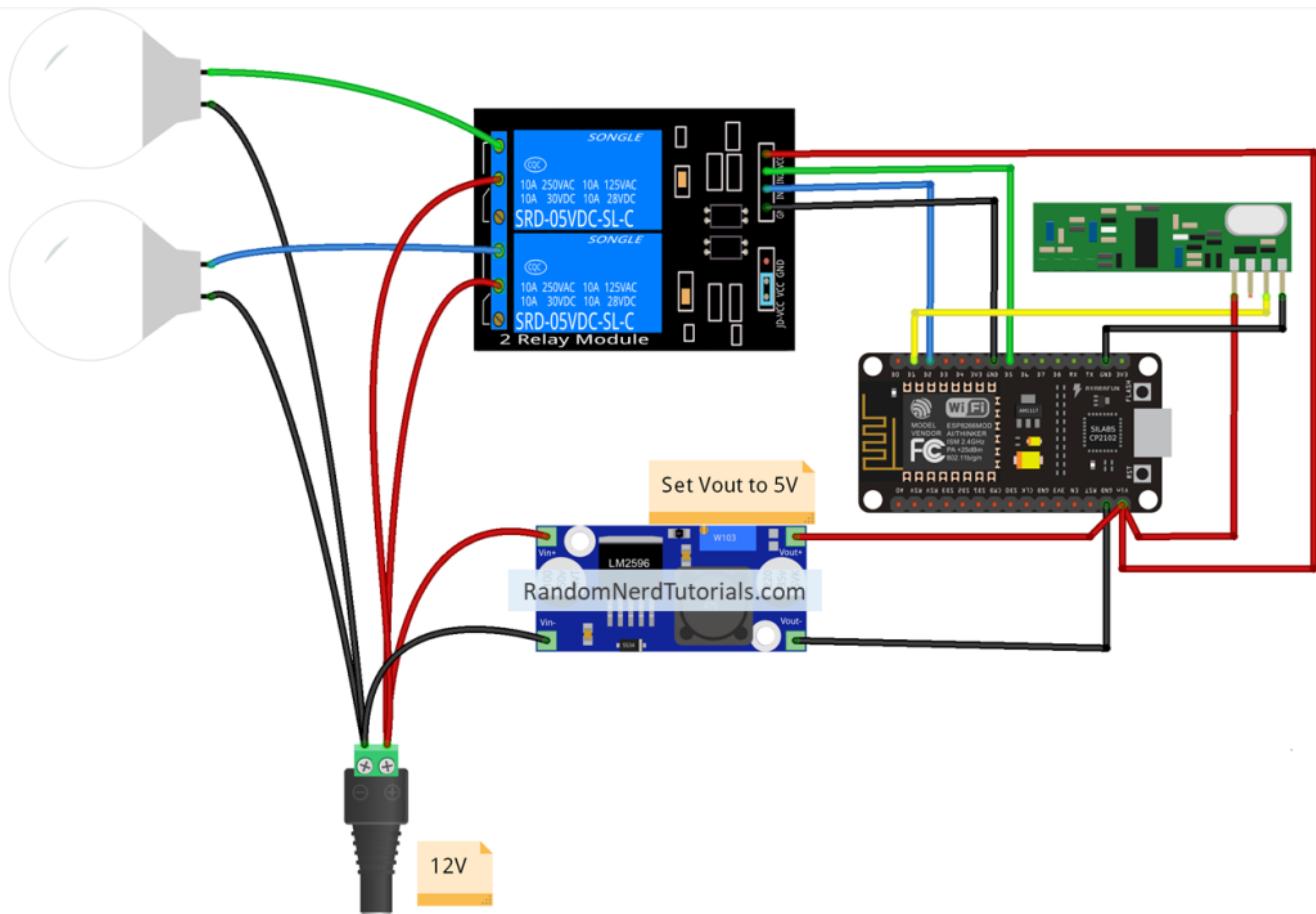
You also need to install the ESPAsyncTCP Library library. Follow the next instructions to install it:

1. [Click here to download the ESPAsyncTCP library.](#) You should have a .zip folder in your Downloads
2. Unzip the .zip folder and you should get **ESPAsyncTCP-master** folder
3. Rename your folder from **ESPAsyncTCP-master** to **ESPAsyncTCP**
4. Move the ESPAsyncTCP folder to your Arduino IDE installation **libraries** folder
5. Finally, re-open your Arduino IDE

Schematic

If you're using an ESP8266 board, assemble your circuit by following the next schematic diagram – you can click the image to zoom.

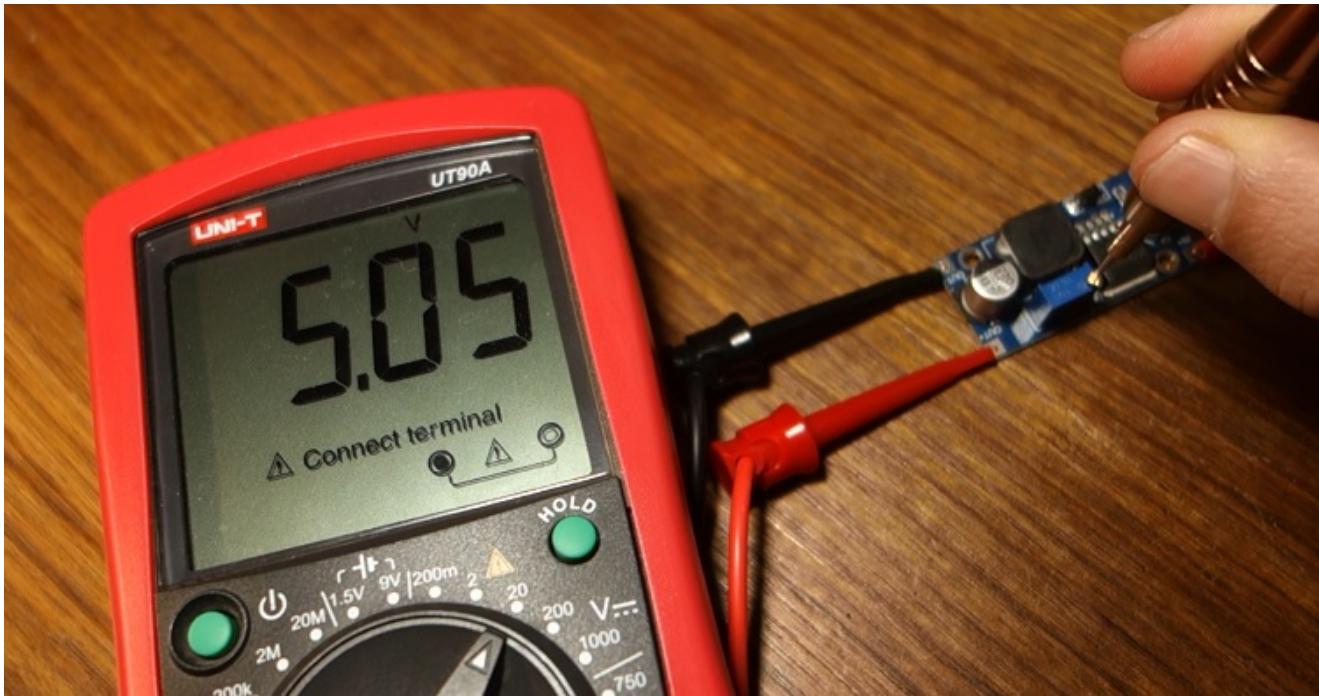




If you're having trouble following the circuit diagram, you can use the following table as a reference:

ESP8266	Connect to
GPIO 5	433 MHz receiver data pin
GPIO 4	Relay IN1 pin
GPIO 14	Relay IN2 pin

IMPORTANT NOTE: before applying power, make sure you set your step-down buck converter output voltage to 5V! Otherwise, you may damage your ESP.



Alexa – Echo Dot with ESP32

Follow these next instructions if you're using an ESP32.

Installing the ESP32 Board in Arduino IDE

In order to upload code to your ESP32 using Arduino IDE, you should install an add-on for the Arduino IDE that allows you to program the ESP32 using the Arduino IDE and its programming language. If you haven't installed the ESP32 add-on for the Arduino IDE, follow the next tutorial:

- [Windows instructions – Installing the ESP32 Board in Arduino IDE](#)
- [Mac and Linux instructions – Installing the ESP32 Board in Arduino IDE](#)

Installing the AsyncTCP Library

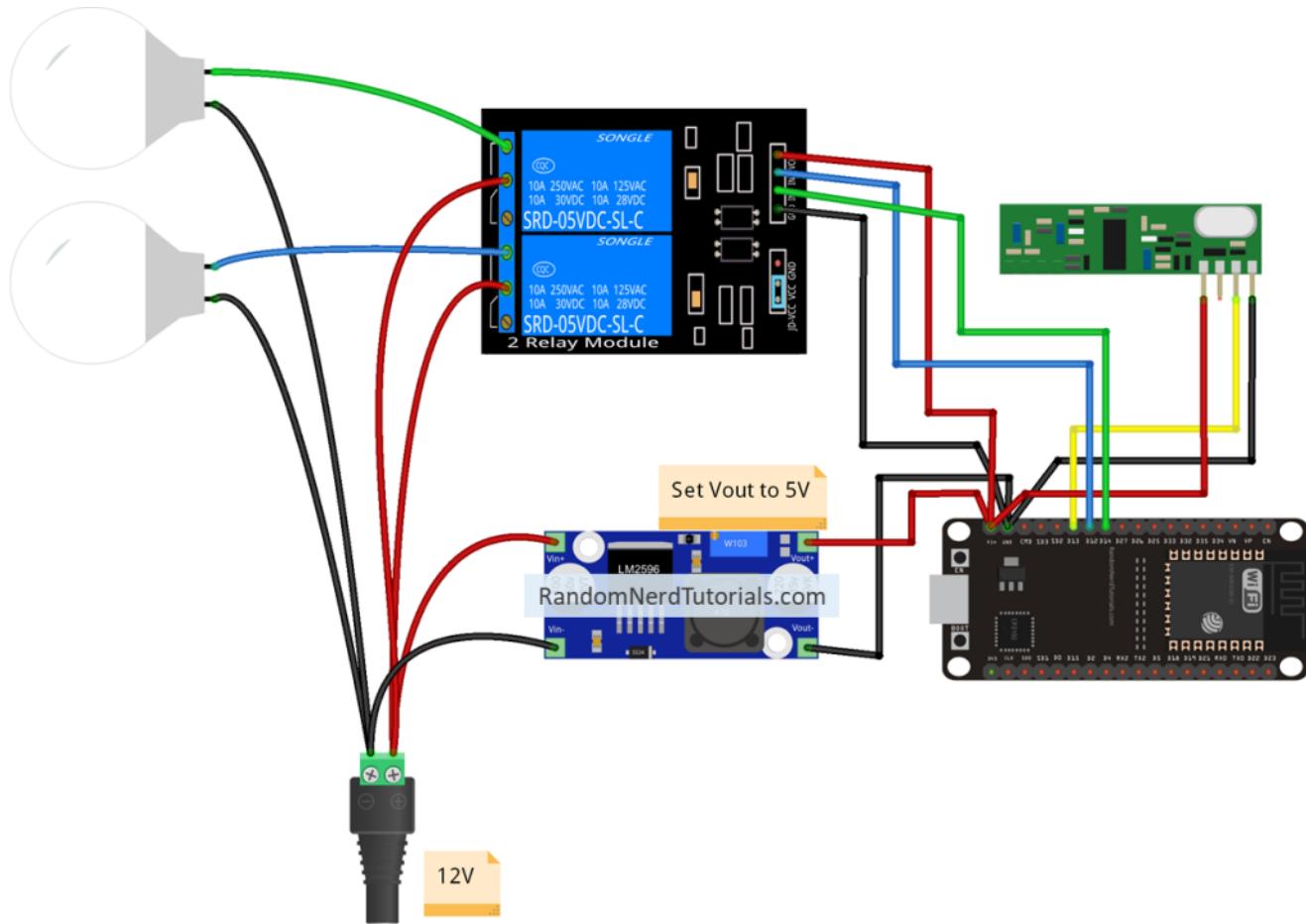
You also need to install the AsyncTCP Library. Follow the next instructions to install it:

1. [Click here to download the AsyncTCP library](#). You should have a .zip folder in your Downloads
2. Unzip the .zip folder and you should get **AsyncTCP-master** folder
3. Rename your folder from **AsyncTCP-master** to **AsyncTCP**



Schematic

If you're using an ESP32 board, assemble your circuit by following the next schematic diagram – you can click the image to zoom.



If you're having trouble following the circuit diagram, you can use the following table as a reference:

ESP32	Connect to
GPIO 13	433 MHz receiver data pin
GPIO 14	Relay IN1 pin
GPIO 12	Relay IN2 pin

IMPORTANT NOTE: before applying power, make sure you set your step-down buck converter output voltage to 5V! Otherwise, you may damage your ESP.



Code

Copy the following code to your Arduino IDE, but don't upload it yet! You need to make some changes to make it work for you.

```
/*
 * Rui Santos
 * Complete Project Details https://randomnerdtutorials.com
 */

#include <Arduino.h>
#ifndef ESP32
    #include <WiFi.h>
    #define RF_RECEIVER 13
    #define RELAY_PIN_1 12
    #define RELAY_PIN_2 14
#else
    #include <ESP8266WiFi.h>
    #define RF_RECEIVER 5
    #define RELAY_PIN_1 4
    #define RELAY_PIN_2 14
#endif
```



```
#include <RCSwitch.h>

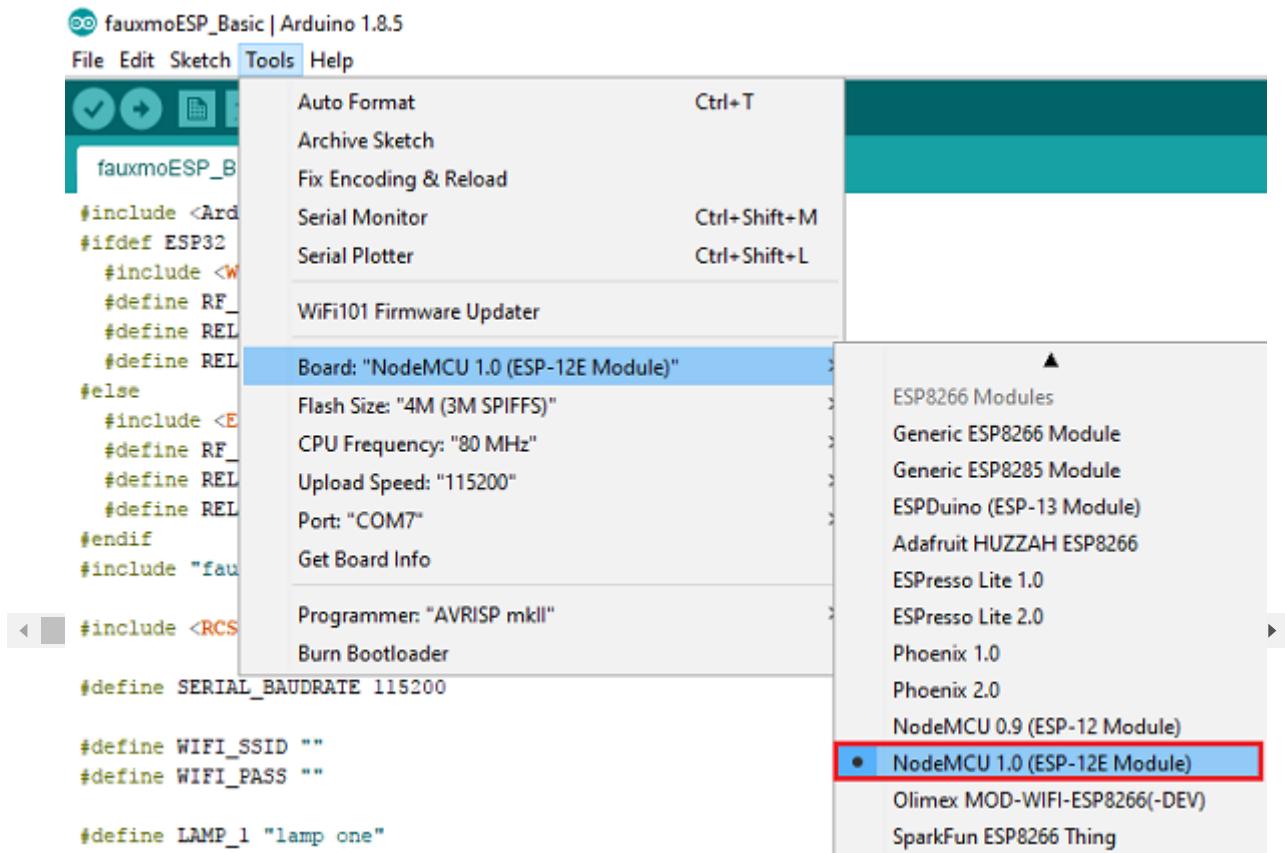
#define SERIAL_BAUDRATE 115200

#define WIFI_SSID "REPLACE_WITH_YOUR_SSID"
#define WIFI_PASS "REPLACE_WITH_YOUR_PASSWORD"
```

[View raw code](#)

Selecting the right board

This code works both with ESP32 and ESP8266. To make it work for your board, you need to select the board you're using in **Tools > Board**. Select your ESP8266 or ESP32 model.



Add your network credentials

You need to modify the following lines to include your network credentials.



```
#define WIFI_PASS "REPLACE_WITH_YOUR_PASSWORD"
```

Add your 433 MHz signal codes

You also need to include the signals you've decoded previously for your wall panel switches.

Replace the value highlighted in red with the value you've gotten for the switch that controls lamp 1:

```
if (mySwitch.getReceivedValue()==6819768) {  
    digitalWrite(RELAY_PIN_1, !digitalRead(RELAY_PIN_1));  
}
```

And the value for lamp 2 in the following:

```
if (mySwitch.getReceivedValue()==9463928) {  
    digitalWrite(RELAY_PIN_2, !digitalRead(RELAY_PIN_2));  
}
```

Uploading the code

After making all the necessary changes, you can upload code to your ESP. Make sure you have the right COM port selected, in **Tools > Port**. For demonstration purposes, you can open your Serial Monitor at a baud rate of 115200, while you prepare your Echo Dot.

Alexa, Discover Devices

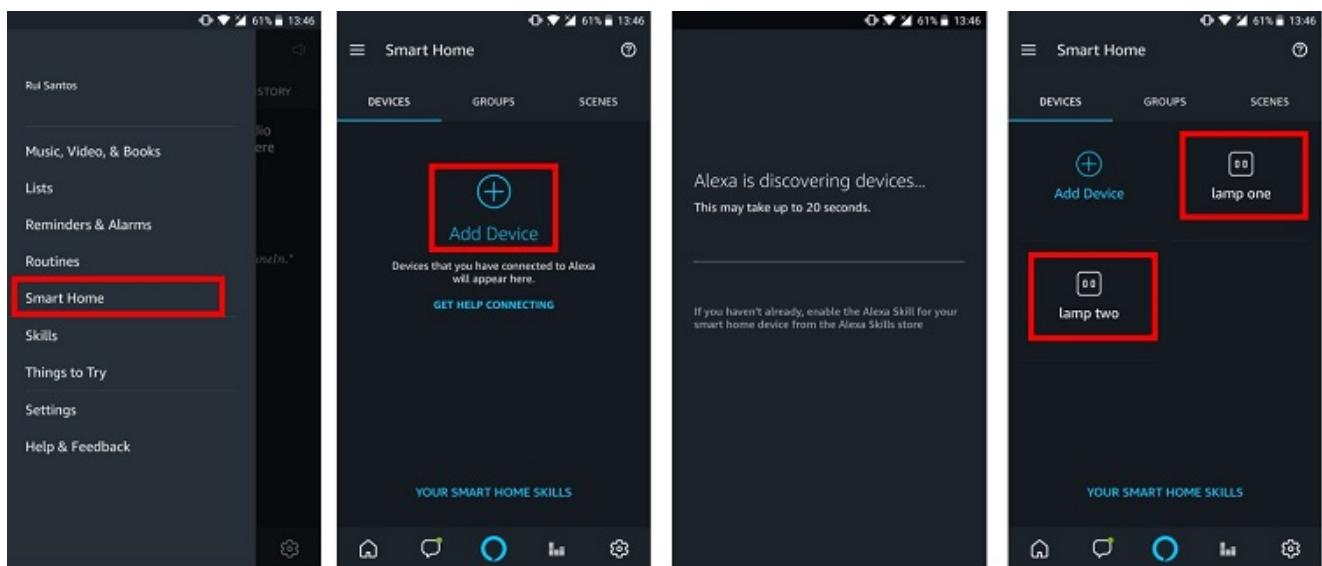
With the circuit ready, and the code uploaded to your ESP8266 or ESP32, you need to ask alexa to discover devices.

Say: “Alexa, discover devices”. It should answer as shown in the figure below.





Alternatively, you can also discover devices using the Amazon Alexa app, by following the steps shown in the figure below.



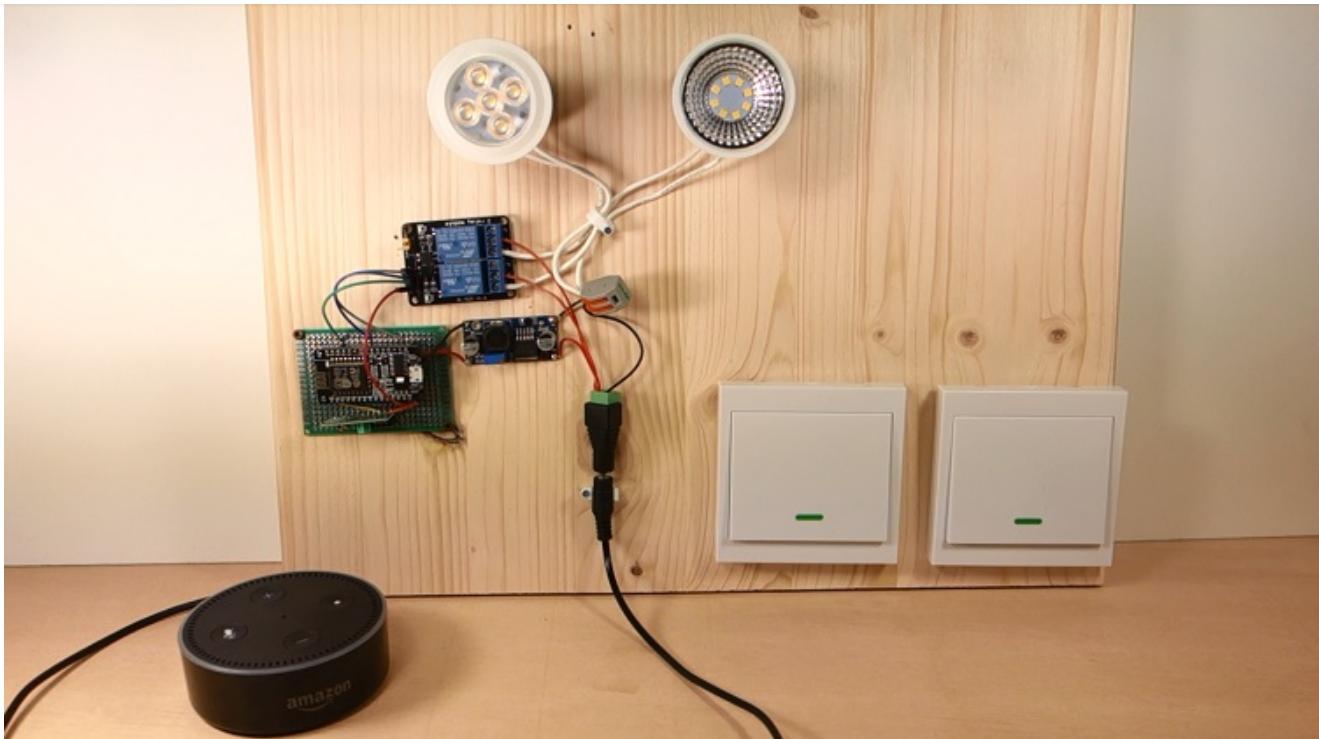
Then, ask Alexa to turn on/off the lamps. You'll also get information about the lamps state on the Serial Monitor.

```
[WIFI] Connecting to MEO-620B4B .....  
[WIFI] STATION Mode, SSID: MEO-620B4B, IP address: 192.168.1.132  
[MAIN] Device #0 (lamp one) state: ON  
RELAY 1 switched by Alexa  
[MAIN] Device #0 (lamp one) state: OFF  
RELAY 1 switched by Alexa  
[MAIN] Device #1 (lamp two) state: ON  
RELAY 2 switched by Alexa  
[MAIN] Device #1 (lamp two) state: OFF  
RELAY 2 switched by Alexa  
[MAIN] Device #1 (lamp two) state: ON  
RELAY 2 switched by Alexa  
[MAIN] Device #0 (lamp one) state: ON  
RELAY 1 switched by Alexa  
[MAIN] Device #0 (lamp one) state: OFF  
RELAY 1 switched by Alexa  
[MAIN] Device #1 (lamp two) state: OFF  
RELAY 2 switched by Alexa
```

After making sure everything is working properly, you can turn your circuit into a permanent solution.

Demonstration

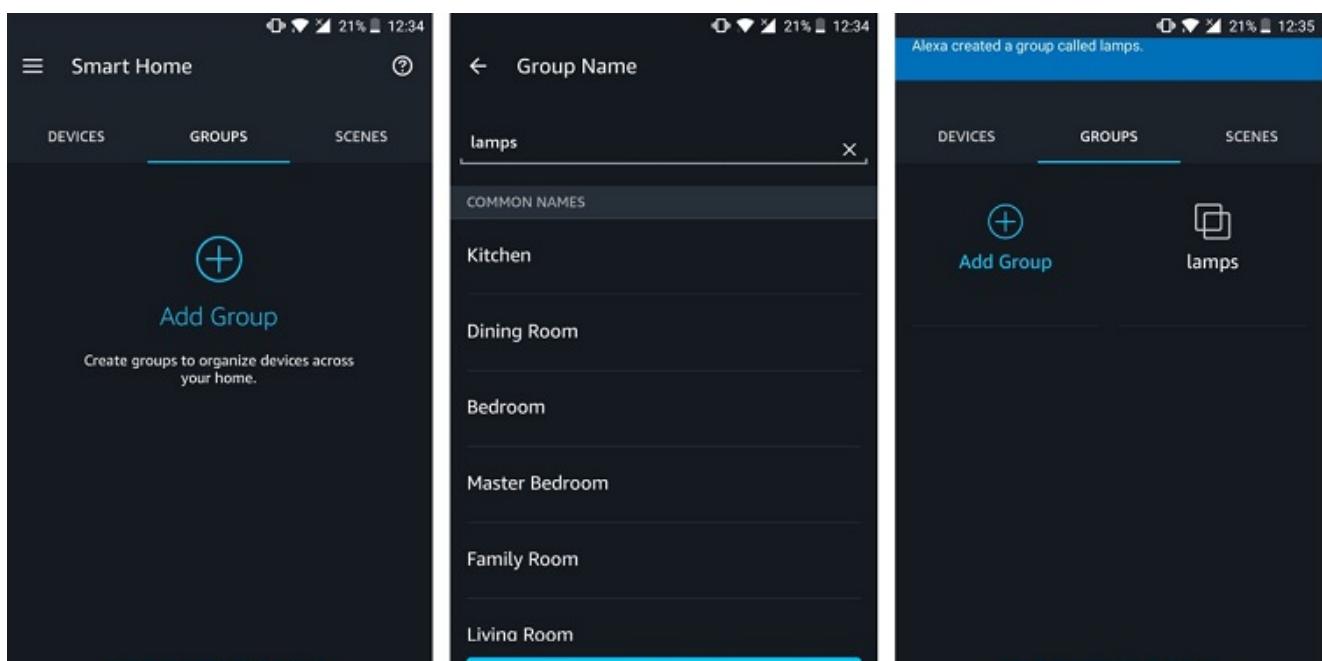
For demonstration purposes, we've built our circuit in a prototyping stripboard, and attached everything in a wooden board, as shown in the figure below:



Now you can ask Alexa to control your lamps with the following voice commands:

- “Alexa, turn on lamp 1”
- “Alexa, turn off lamp 1”
- “Alexa, turn on lamp 2”
- “Alexa, turn off lamp 2”

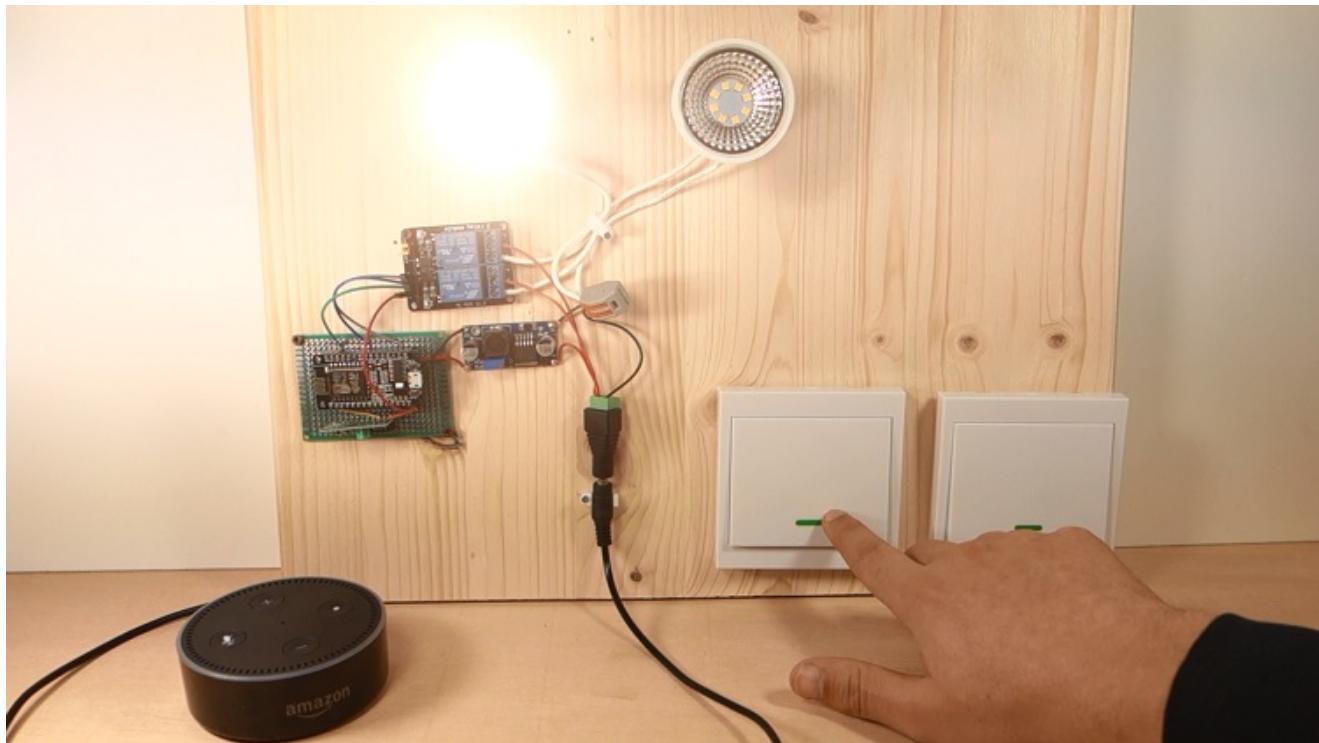
You can also control both lamps at the same time by creating a group in the Amazon Alexa app. We called it “lamps”.



Now, you can control both lamps at the same time, using the following voice commands.

- “Alexa, turn on lamps”
- “Alexa, turn off lamps”

You can also physically control your lamps using the 433 MHz wall panel switches.



Wrapping Up

In this project we've shown how to control your ESP8266 and your ESP32 with voice commands using Amazon Echo. As an example, we've controlled two 12V lamps using a relay. Instead of 12V lamps, you can control any other electronics appliances. We've also shown you how you can remotely control your lamps using a 433 MHz wall panel switch.

We hope you've found this project useful. If you liked this post, you may also like:

- [Build a Home Automation System](#)
- [Home Automation using ESP8266](#)
- [Build an All-in-One ESP32 Weather Station Shield](#)
- [ESP8266 Wi-Fi Button – DIY Amazon Dash Button Clone](#)



Thanks for reading.

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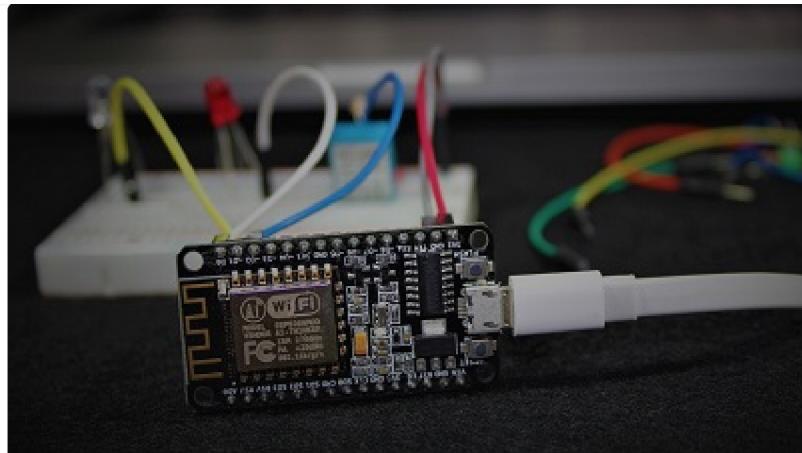
Build Web Server projects with the ESP32 and ESP8266 boards to control outputs and monitor sensors remotely. Learn HTML, CSS, JavaScript and client-server communication protocols [DOWNLOAD »](#)

Recommended Resources

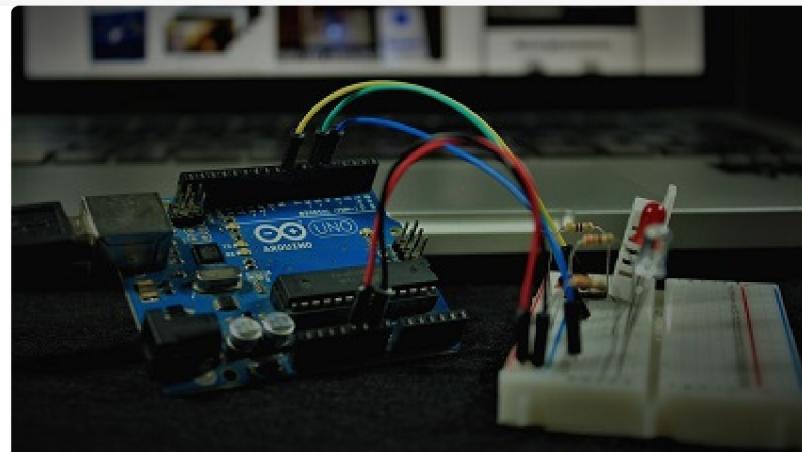
[Build a Home Automation System from Scratch »](#) With Raspberry Pi, ESP8266, Arduino, and Node-RED.

<https://randomnerdtutorials.com/alex Echo with ESP32 and ESP8266/>

20/100



[Home Automation using ESP8266 eBook and video course »](#) Build IoT and home automation projects.



[Arduino Step-by-Step Projects »](#) Build 25 Arduino projects with our course, even with no prior experience!

What to Read Next...



ESP32 Weather Station Interface PCB Shield (Temperature, Humidity, Pressure, Date and Time)

[Firebase: Control ESP32 GPIOs from Anywhere](#)

[ESP32 Web Server with Slider: Control LED Brightness \(PWM\)](#)

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155 thoughts on “Alexa (Echo) with ESP32 and ESP8266 – Voice Controlled Relay”

**John Haywood**

March 7, 2018 at 11:09 am

Great idea! This would probably work (with some code modification) with my ESP32 VROOM (DOIT v1) board as well because it has the wi-fi (and bluetooth) capability on the board already.

[Reply](#)**Sara Santos**

March 7, 2018 at 5:42 pm

Hi John.

This project works with ESP32.

We give the instructions on how to make it work with the ESP32. We've tested this example using that exact same ESP32 module (DOIT V1).

[Reply](#)**John Haywood**

March 7, 2018 at 8:22 pm



Yes, you are right, sorry! I must have missed part of the board description and got confused with it saying the board had 36 GPIOs, when the board itself only has 30 pins.

Looking forward to making this tomorrow 😊

[Reply](#)



Sara Santos

March 8, 2018 at 9:30 am

Hi John.

Note that the most recent versions of the DOIT board come with 36 pins.

[Reply](#)



pooja sri

December 3, 2020 at 12:34 pm

Hi Sara.

I have tried my alexa with esp8266, but i can't find any devices .I have tried all examples and i have tried tools Lwip 1.4 higher bandwidth but there is know use.

Can you please help me.

Thanks & Regards

pooja

[Reply](#)



**Fernando**

December 9, 2020 at 3:10 pm

Just turn echo dot off and on, and search again, it was useful for me.

[Reply](#)**David**

June 27, 2021 at 11:30 am

Make sure the Flash size is big enough, Tool: Flash: top option is FS2.
I noticed as soon as I asked Alex the serial monitor would crash and restart and never find devices

[Reply](#)**Adrian from Romania**

October 27, 2021 at 2:51 pm

Hi Sara and Ruis.

Thank you for your outstanding work and generosity.

For those interested, skip to the words “solved”.

As a retired (71 years old) electronics engineer with a master (long time ago) in industrial electronics, I cherish my retirement playing with Arduino, ESP8266 ... and your site is a great source of inspiration.

Regarding Echo Dot 3 + fauxmoESP + ESP8266 for sending commands to a lamp (plug) here is my latest experience.



and my sketch stopped working. I thought that using fauxmo will let me circumvent the issue, since it worked some time ago. Alas, the sketch which used fauxmo also stopped working. Alexa on Echo Dot 3 was unable to drive my IR plug (the “bulb” I was talking to) because there was no more device discovery.

Solved (discovery of ESP8266 by Alexa) using fauxmoESP library version 3.4.0.

But, after discovery, although my ESP8266 (ESP-12E, Wemos D1, NodeMCU) was sending pulses to the IR led, the IR plug did not respond.

Solved (physical device responding) using a scope and comparing the patterns sent by the sketch which included use of fauxmoESP vs. a simple sketch which just sent the IR patterns that worked before. It turns out that the sketch using fauxmoESP does not need the final 10 (out of 77) intervals of 38kHz pulses. No clue why, but trimming the pattern to 67 just works.

Sara, Ruis and all of you please stay healthy.

Adrian

[Reply](#)



Lance Benson

March 7, 2018 at 3:49 pm

What 12V LED lamps did you use? What wattage?

[Reply](#)



John Haywood

March 7, 2018 at 4:25 pm



Wattage would be governed by the relay contacts and any limitations of current supplied by your 12v power supply. The relay module shown has contacts rated at 10 amps so I think your absolute maximum rating for 12 volt LED lamps would be $(10A \times 12V) = 120$ Watts per relay. Personally, I would use 60W max per relay.

[Reply](#)



Sara Santos

March 7, 2018 at 5:41 pm

Hi Lance.

We're using GU5.3 12V lamps 5.5W.

We use these lamps because many people in our audience are beginners, so we prefer to show how to use relays using a 12V lamp (instead of mains voltage).

However, this tutorial could be easily applied to control any AC lamp.

Regards,

Sara

[Reply](#)



chuck

March 7, 2018 at 5:04 pm

please show how this can be done without the echo / google devices for those of us that are skeptical about privacy concerns with these devices, something that would use both voice or 433Mhz would be great for those



[Reply](#)**Rui Santos**

March 14, 2018 at 6:23 pm

Unfortunately, I haven't found a good solution to what you're looking for.
Regards,
Rui

[Reply](#)**Michael**

November 2, 2018 at 7:58 pm

You can use the BitVoicer software. You can install it on your local computer in your home and do voice. bitsophia.com/en-US/Home.aspx

[Reply](#)**Sara Santos**

November 4, 2018 at 11:00 am

Thank you Michael for sharing that solution.

[Reply](#)

**Kevin Hogan**

March 7, 2018 at 8:23 pm

This is a fantastic post!!! Definitely, add it to your course! This is exactly a project I wanted to duplicate and was having difficulty with. Thanks!

[Reply](#)**Sara Santos**

March 8, 2018 at 9:29 am

Hi Kevin.

Thanks! We're glad you've found this project useful.

Regards,

Sara

[Reply](#)**Jeff Young**

March 7, 2018 at 8:41 pm

Hi great project thanks great for learning

[Reply](#)**Sara Santos**

March 8, 2018 at 9:29 am



Hi Jeff.

Thank you 😊

[Reply](#)



langtupt

March 8, 2018 at 6:32 am

WOW, good job.

Hi John,

How to control device Lamp 1 and Lamp 2 in Google Home?

Can you help share the tutorial.

Thank you very much

[Reply](#)



Sara Santos

March 8, 2018 at 9:33 am

Hi.

We don't have a Google Home yet.

So, we can't help you with that project at the moment.

[Reply](#)



niels



hi

I compiled the program, and uploaded it to my NodeMCU, on the monitor I got the information that it has connected to my WiFi.

But Alexa did not find any new devices when asked! I have Belkin Wemo smart home skill enabled

What should I do next?

[Reply](#)

 **Rui Santos**

March 14, 2018 at 5:54 pm

Hi Niels,

I'm not sure why that's happening, but a few others are reporting the same problem: github.com/kakopappa/arduino-esp8266-alexa-multiple-wemo-switch/issues/22

[Reply](#)

 **Michael**

October 26, 2018 at 7:25 pm

I know there is some issues with 2nd Generation Echo Dot with Fauxmo. You might try the solution they mention on this link. If that doesn't work there is a client called Sinric.

bitbucket.org/xoseperez/fauxmoesp/issues/35/device-not-responding-but-works

Here is the link to Sinric:

hackster.io/kakopappa/sinric-147d27



Hope one of those works for you. I have a 2nd Gen but haven't got a chance to try it myself.

[Reply](#)



Sara Santos

October 27, 2018 at 9:15 am

Thanj you Michael, for sharing that solution 😊

[Reply](#)



Mike

November 16, 2018 at 5:14 am

Hey Sara – wondering if you guys can update your example, as I just tried this as well (am going through the ESP32 course) and have had a few stumbles along the way... but Fauxmo not working with the latest generation of Echos makes the tutorial frustrating as you don't find out until the end when you (excitedly) go to discover your device to have it not show up, and have troubleshooted all the other issues along the way.

[Reply](#)



Sara Santos

November 16, 2018 at 10:14 am

Hi Mike.



I don't know when it will be, because at the moment we just have the 2nd generation. We need to get the 3rd generation to test everything. Meanwhile, I'll leave a note at the beginning of the post to inform that this just works with the 2nd generation.

Regards,

Sara 😊



cesar Israel Romero

February 8, 2020 at 11:05 pm

Just found a workaround in this post:

bitbucket.org/xoseperez/fauxmoesp/issues/98/server-is-unresponsive-and-incorrect



Kerry

December 1, 2020 at 6:44 pm

I know this is a super old issue.

I found a solution that might work:

<https://bitbucket.org/xoseperez/fauxmoesp/issues/66/fauxmo-with-echo-dot-3>

I will test it on my setup and update this if it works.

Thanks for an awesome walk through!



lizaboo

March 16, 2018 at 8:23 pm



Thank you a great job. It looks great.

[Reply](#)



Sara Santos

March 17, 2018 at 11:43 am

Thanks 😊

[Reply](#)



Duncan Amos

March 23, 2018 at 7:25 pm

Watch out for the men in uniforms – 433MHz is not quite as ‘free’ as many people believe it to be, certainly within Europe.

In Asia, where almost all these devices originate, it really is more or less a free to use for anything band.

With one of my other hats on, I had a run-in with the authorities over ‘laser gaming guns’ that had an RF system operating at 433MHz.

It’s highly unlikely that RF switches would be noticed, but you never know!

Permitted use restrictions are incredibly complex in, their conditions and I don’t pretend to understand them – this was just a ‘heads-up’...

[Reply](#)



**Rajiv Shankar**

April 2, 2018 at 11:30 am

Alexa could not find new devices. I tried to get it discovered by Amazon Alexa app as mentioned in your tutorial but without any success.

[Reply](#)**Matej**

April 4, 2018 at 12:41 pm

Hi

Do I really need the RF 433MHz Transmitter/Receiver for all of this to work? Will it work if I connect it only by Amazon dot?

[Reply](#)**Sara Santos**

April 4, 2018 at 2:17 pm

Hi.

We use the 433 MHz transmitter because we've added a 433 MHz button to our setup.

You don't need to use the transmitter if you just want to use Amazon dot to control your lamps.

I hope this helps.



**Matej**

May 5, 2018 at 1:59 pm

Hi.

I have compiled the program with and without the transmitter codes, with those codes program doesn't even compile properly and without them, i can compile but can't upload to my module, any idea what to do? I followed all the steps and it doesn't work.

[Reply](#)**Jose L Gonzalez**

June 25, 2018 at 12:13 am

Hi!!!

This project works great.Thanks.

Currently, I am looking for something to control 433 mhz outlets with alexa, can you recommend me where to look?

Best Regards.

[Reply](#)**Sara Santos**

June 25, 2018 at 11:13 am

Hi Jose.

We usually recommend these 433 mhz outlets:



I hope this helps.

Regards,

Sara 😊

[Reply](#)



Jose L Gonzalez

June 26, 2018 at 11:54 pm

Hello Sara. Currently, I am controlling 5 etekcity sockets, with the remote control, and Blynk app, using a “sonoff basic”, with a 433mhz transmitter. As I am not a programmer, I had to use copy and paste, of several different projects, until I got it to work. I use it, for lights, irrigation, air conditioning, etc. What I'd like to do is use Alexa, as a third way to use my devices, but I do not know how to do it in my sketch, or in yours.

Thanks.

[Reply](#)



Duncan Amos

June 27, 2018 at 11:23 am

Yes, I was surprised that control of RF sockets wasn't included in. the project.

[Reply](#)



Sara Santos



Hi Jose.

First, you need to add a 433MHz transmitter to the ESP8266 (like this one: <https://makeradvisor.com/tools/433mhz-receiver-transmitter-module/>), so that the ESP is able to send RF signals to control the sockets.

Then, you need to find the values sent by the transmitter to turn the sockets on and off. You can take a look at the first part of this tutorial to learn how to do that: [ESP8266 Remote Controlled Sockets](#)

Finally, you need to modify the code in the Alexa tutorial as follows.

In the following part of the code, in the first if statement, instead of using digitalWrite(), you should write the command to send the right RF signals to turn the socket on. And in the second if statement you should send the RF command to turn the socket off.

```
if (state) {  
    digitalWrite(RELAY_PIN_1, LOW);  
} else {  
    digitalWrite(RELAY_PIN_1, HIGH);  
}
```

I hope this helps.

You may also find useful taking a look at these next tutorials:

- [Decode and Send 433 MHz RF Signals with Arduino](#)
- [Complete Guide for RF 433MHz Transmitter/Receiver Module With Arduino](#)

[Reply](#)



Jose L Gonzalez

June 27, 2018 at 10:53 pm

HI,Sara.

I think this will help me so much.

Thaks a lot.



**Jose L Gonzalez**

July 1, 2018 at 1:24 am

Hi Sara.

I have added the code to use my etekcity 433mhz outlets, and now I can use it, to control them with my Alexa Echo Dot. I have connected a transmitter, and I am using the project, for the lights of my bedside tables, and at the same time controlling the lights from the living room, kitchen, entrance, backyard, etc.

I guess you can control other outlets, and other devices, just by sniffing codes.

I hope this can be useful to other people.

Greetings.

```
#include  
#ifdef ESP32  
#include  
#define RF_RECEIVER 13  
#define RELAY_PIN_1 12  
#define RELAY_PIN_2 14  
#else  
#include //I am using ESP8266-12E module  
#define RF_RECEIVER 5  
#define RELAY_PIN_1 4  
#define RELAY_PIN_2 14  
#endif  
#include "fauxmoESP.h"  
  
#include  
  
#define SERIAL_BAUDRATE 115200  
  
#define WIFI_SSID "XXXXXXXXXX"  
#define WIFI_PASS "XXXXXXXXXX"
```

```
#define LAMP_1 "lamp one"
#define LAMP_2 "lamp two"
#define LAMP_3 "living light"
fauxmoESP fauxmo;

RCSwitch mySwitch = RCSwitch();

// Wi-Fi Connection
void wifiSetup() {
    // Set WIFI module to STA mode
    WiFi.mode(WIFI_STA);

    // Connect
    Serial.printf("[WIFI] Connecting to %s ", WIFI_SSID);
    WiFi.begin(WIFI_SSID, WIFI_PASS);

    // Wait
    while (WiFi.status() != WL_CONNECTED) {
        Serial.print(".");
        delay(100);
    }
    Serial.println();

    // Connected!
    Serial.printf("[WIFI] STATION Mode, SSID: %s, IP address: %s\n",
        WiFi.SSID().c_str(), WiFi.localIP().toString().c_str());
}

void setup() {
    // Init serial port and clean garbage
    Serial.begin(SERIAL_BAUDRATE);
    Serial.println();
    mySwitch.enableTransmit(12); // pin GPIO12 for 433mhz transmpter
    mySwitch.setPulseLength(187); //pulse length for 433mhz etekcity
    outlets
    // Wi-Fi connection
    wifiSetup();
```



```
// LED
pinMode(RELAY_PIN_1, OUTPUT);
digitalWrite(RELAY_PIN_1, HIGH);

pinMode(RELAY_PIN_2, OUTPUT);
digitalWrite(RELAY_PIN_2, HIGH);

mySwitch.enableReceive(RF_RECEIVER); // Receiver on interrupt 0
=> that is pin #2

// You can enable or disable the library at any moment
// Disabling it will prevent the devices from being discovered and
switched
fauxmo.enable(true);

// Add virtual devices
fauxmo.addDevice(LAMP_1);
fauxmo.addDevice(LAMP_2);
fauxmo.addDevice(LAMP_3);
// you can add more devices

// fauxmoESP 2.0.0 has changed the callback signature to add the
device_id,
// this way it's easier to match devices to action without having to
compare strings.
fauxmo.onSetState([](unsigned char device_id, const char *
device_name, bool state) {
Serial.printf("[MAIN] Device #%d (%s) state: %s\n", device_id,
device_name, state ? "ON" : "OFF");

if ( (strcmp(device_name, LAMP_1) == 0) ) {
// this just sets a variable that the main loop() does something about
Serial.println("RELAY 1 switched by Alexa");
//digitalWrite(RELAY_PIN_1, !digitalRead(RELAY_PIN_1));
if (state) {
digitalWrite(RELAY_PIN_1, LOW);
} else {
```



```
}

if ( (strcmp(device_name, LAMP_2) == 0) ) {
// this just sets a variable that the main loop() does something about
Serial.println("RELAY 2 switched by Alexa");

if (state) {
digitalWrite(RELAY_PIN_2, LOW);
} else {
digitalWrite(RELAY_PIN_2, HIGH);
}
}

if ( (strcmp(device_name, LAMP_3) ==0) ){
if (state) {
mySwitch.send("010100000101010100110011"); // etekcity outlet #1
connected to my living light "ON" binary code
} else {
mySwitch.send("010100000101010100111100"); // etekcity outlet #1
connected to my living light "OFF" binary code
}
}

});

// Callback to retrieve current state (for GetBinaryState queries)
/*fauxmo.onGetState([](unsigned char device_id, const char *
device_name) {
//return !digitalRead(RELAY_PIN_1);
return
});*/
}

void loop() {
// Since fauxmoESP 2.0 the library uses the "compatibility" mode by
// default, this means that it uses WiFiUdp class instead of
AsyncUDP.
// The later requires the Arduino Core for ESP8266 staging version
// whilst the former works fine with current stable 2.3.0 version.
// But, since it's not "asvnc" anymore we have to manually poll for
```



```
// packets  
fauxmo.handle();  
  
/*static unsigned long last = millis();  
if (millis() - last > 5000) {  
last = millis();  
Serial.printf("[MAIN] Free heap: %d bytes\n", ESP.getFreeHeap());  
}*/  
  
if (mySwitch.available()) {  
/*Serial.print("Received ");  
Serial.print( mySwitch.getReceivedValue() );  
Serial.print(" / ");  
Serial.print( mySwitch.getReceivedBitlength() );  
Serial.print("bit ");  
Serial.print("Protocol: ");  
Serial.println( mySwitch.getReceivedProtocol() );*/  
if (mySwitch.getReceivedValue()==6819768) {  
digitalWrite(RELAY_PIN_1, !digitalRead(RELAY_PIN_1));  
}  
if (mySwitch.getReceivedValue()==9463928) {  
digitalWrite(RELAY_PIN_2, !digitalRead(RELAY_PIN_2));  
}  
delay(600);  
mySwitch.resetAvailable();  
}  
}
```



John Haywood

June 26, 2018 at 7:18 am

Depending on your exact needs, this project would work fine except for the relay board. You would need to look at other relay boards to find ones



OR you could simply build your own power relay board and use this project to turn on your home made relay board instead of 12 volt bulbs.

[Reply](#)



Duncan Amos

July 1, 2018 at 8:11 am

If anyone wants to go deeper into hacking 433MHz devices (or those using other RF frequencies), this video by Andreas Spiess ("the guy with the Swiss accent") is excellent...

<https://youtu.be/L0fSEbGEY-Q>

[Reply](#)



Trần Việt Phương

July 8, 2018 at 3:13 am

Thank you, please share

[Reply](#)



Rui Santos

July 11, 2018 at 10:29 am

You're welcome. Thanks for reading!



[Reply](#)**Fabian**

July 29, 2018 at 11:54 pm

How dou you setup alexa when i say “Alexa to turn on/off the lamps” and how the code read this instruction in the ESP8266 ?

[Reply](#)**Sascha**

October 26, 2018 at 7:42 am

Hello, i have a Problem in the Arduino IDE, but i can't find it. Can you pleas help me?

Alexa:76: error: expected primary-expression before ‘unsigned’

```
fauxmo.onSetState((unsigned char device_id, const char * device_name,  
bool state) {
```

^

Alexa:76: error: expected ')' before ‘unsigned’

Alexa:139: error: expected ';' at end of input

```
}
```

^



Alexa:139: error: expected ‘}’ at end of input

exit status 1
expected primary-expression before ‘unsigned’

[Reply](#)



Sara Santos

October 29, 2018 at 9:59 am

Hi Sascha.

Did you modify our code example?

It seems you have a syntax error: you have a) and } missing on in the wrong place.

Please double-check your code indentation is correct. See if you have line 97 on your code: https://github.com/RuiSantosdotme/Random-Nerd-Tutorials/blob/master/Projects/Alexa/ESP32_ESP8266_2_Devices.ino

Regards,

Sara

[Reply](#)



Icarusx

October 30, 2018 at 9:48 am

Is missing... “, unsigned char value” in the fauxmo.onSetState...

[Reply](#)



I compiled the sketch for esp development module and I've received several error with fauxmoesp. Did somebody already tested for this environment?

[Reply](#)



Sara Santos

November 8, 2018 at 10:11 am

Hi Giovanni.

What kind of error are you getting?

Regards,

Sara 😊

[Reply](#)



Duncan

November 8, 2018 at 1:04 pm

I can't even get the code to compile (having finally got around to trying it) – the error I get is:

'class fauxmoESP' has no member named 'onSetState'

I get the same error if I try the example sketch that comes with the fauxmo library.

Wemos D1 Mini, fauxmo v3.0.2

[Reply](#)



**Sara Santos**

November 9, 2018 at 1:05 pm

Hi Duncan.

There are other people reporting that error.

Honestly I don't know why it is happening. Maybe it has something to do with some library updates.

Meanwhile if you find what is causing the error, please let us know.

Regards,

Sara 😊

[Reply](#)**Duncan Amos**

November 9, 2018 at 1:51 pm

I found the answer to this problem about an hour ago.

In my case, I had two versions of the faumo library in different places and although I'd updated one of them, it was trying to use the other one (there must be some method for the order of looking for libraries but I have no idea what it is). Overwriting the old version with the new version fixed that particular problem.

But...

The method used by the library has changed significantly, which means that earlier examples of programs that use the library now throw other errors...

Your example will run on a D1 Mini but won't run on a Sonoff (Board: Generic ESP8266 and pins changed to suit). I tried your earlier



I think it would be useful to include the version of all libraries you use as a comment. Once the code is compiled, uploaded and running, it's all self-contained and will just carry on working – it's new uploads that have the problems.

**Sara Santos**

November 10, 2018 at 10:53 am

Hi Duncan. Thank you for sharing your solution.

You are right, sometimes when the libraries update, older examples no longer work. So, it would be useful to include the library version. Thank you.

Regards,

Sara 😊

**Duncan Amos**

November 10, 2018 at 4:13 pm

Heads up..

3rd generation Alexa devices have trouble discovering things.

Neither of my two new 3rd Generation Echo Dots would find new Fauxmo devices – ask the 2nd Gen Dot and it found everything immediately. Once 'on the list' the Gen 3s control them OK.

Amazon are aware of the problem, but...



**Sara Santos**

November 9, 2018 at 1:08 pm

Can you follow the suggestions in this topic and see if it works?

github.com/xoseperez/espurna/issues/406

[Reply](#)**Phil Nicholson**

November 9, 2018 at 9:12 am

This doesn't work? ESP32 connected and doesn't compile? 'no matching function for call to 'fauxmoESP::onSetState(setup()):''

[Reply](#)**Sara Santos**

November 9, 2018 at 1:09 pm

Hi Phil.

Can you follow the suggestions on this topic and see if it works?

github.com/xoseperez/espurna/issues/406

Regards,

Sara

[Reply](#)

**Rui Santos**

November 10, 2018 at 7:07 pm

Are you using the latest version of the FauxmoESP library? Can you remove the old installation, re-download the latest version? Does it work now? Thanks!

[Reply](#)**Belal Quamar**

December 9, 2018 at 6:33 pm

I tried compiling the above code but failed , the error was

alex_a_esp:97: error: no matching function for call to
'fauxmoESP::onSetState(setup())::'

then i read over and found this

<https://github.com/xoseperez/espurna/issues/1141>

went over to bitbucket and downloaded version 2.4 of fauxmo here

<https://bitbucket.org/xoseperez/fauxmoesp/get/2.4.0.zip>

and it compiled

[Reply](#)**Sara Santos**

December 10, 2018 at 9:56 am



Hi, thank you for sharing that solution.

The code we have in the example no longer works with the old version of the library.

Regards,

Sara 😊

[Reply](#)



Mason Jones

December 11, 2018 at 1:21 am

Hi i've tried to verify/upload the following code

```
#include  
#ifdef ESP32  
#include  
#define RF_RECEIVER 13  
#define RELAY_PIN_1 12  
#define RELAY_PIN_2 14  
#else  
#include  
#define RF_RECEIVER 5  
#define RELAY_PIN_1 4  
#define RELAY_PIN_2 14  
#endif  
#include "fauxmoESP.h"  
  
#include  
  
#define SERIAL_BAUDRATE 115200  
  
#define WIFI_SSID "MY_NETWORK"
```



```
#define LAMP_1 "lamp one"
#define LAMP_2 "lamp two"

fauxmoESP fauxmo;

RCSwitch mySwitch = RCSwitch();

// Wi-Fi Connection
void wifiSetup() {
    // Set WIFI module to STA mode
    WiFi.mode(WIFI_STA);

    // Connect
    Serial.printf("[WIFI] Connecting to %s ", WIFI_SSID);
    WiFi.begin(WIFI_SSID, WIFI_PASS);

    // Wait
    while (WiFi.status() != WL_CONNECTED) {
        Serial.print(".");
        delay(100);
    }
    Serial.println();

    // Connected!
    Serial.printf("[WIFI] STATION Mode, SSID: %s, IP address: %s\n",
        WiFi.SSID().c_str(), WiFi.localIP().toString().c_str());
}

void setup() {
    // Init serial port and clean garbage
    Serial.begin(SERIAL_BAUDRATE);
    Serial.println();

    // Wi-Fi connection
    wifiSetup();

    // LED
```



```
pinMode(RELAY_PIN_2, OUTPUT);
digitalWrite(RELAY_PIN_2, HIGH);

mySwitch.enableReceive(RF_RECEIVER); // Receiver on interrupt 0 =>
that is pin #2

// You can enable or disable the library at any moment
// Disabling it will prevent the devices from being discovered and switched
fauxmo.enable(true);

// Add virtual devices
fauxmo.addDevice(LAMP_1);
fauxmo.addDevice(LAMP_2);

// fauxmoESP 2.0.0 has changed the callback signature to add the
device_id,
// this way it's easier to match devices to action without having to compare
strings.
fauxmo.onSetState([](unsigned char device_id, const char * device_name,
bool state) {
    Serial.printf("[MAIN] Device #%d (%s) state: %s\n", device_id,
    device_name, state ? "ON" : "OFF");
    if ( (strcmp(device_name, LAMP_1) == 0) ) {
        // this just sets a variable that the main loop() does something about
        Serial.println("RELAY 1 switched by Alexa");
        //digitalWrite(RELAY_PIN_1, !digitalRead(RELAY_PIN_1));
        if (state) {
            digitalWrite(RELAY_PIN_1, LOW);
        } else {
            digitalWrite(RELAY_PIN_1, HIGH);
        }
    }
    if ( (strcmp(device_name, LAMP_2) == 0) ) {
        // this just sets a variable that the main loop() does something about
        Serial.println("RELAY 2 switched by Alexa");
        if (state) {
            digitalWrite(RELAY_PIN_2, LOW);
        }
    }
}
```



```
}

}

});

// Callback to retrieve current state (for GetBinaryState queries)
/*fauxmo.onGetState([](unsigned char device_id, const char *
device_name) {
//return !digitalRead(RELAY_PIN_1);
return
});*/
}

void loop() {
// Since fauxmoESP 2.0 the library uses the “compatibility” mode by
// default, this means that it uses WiFiUdp class instead of AsyncUDP.
// The later requires the Arduino Core for ESP8266 staging version
// whilst the former works fine with current stable 2.3.0 version.
// But, since it’s not “async” anymore we have to manually poll for UDP
// packets
fauxmo.handle();

/*static unsigned long last = millis();
if (millis() – last > 5000) {
last = millis();
Serial.printf("[MAIN] Free heap: %d bytes\n", ESP.getFreeHeap());
}*/



if (mySwitch.available()) {
/*Serial.print("Received ");
Serial.print( mySwitch.getReceivedValue() );
Serial.print(" / ");
Serial.print( mySwitch.getReceivedBitlength() );
Serial.print("bit ");
Serial.print("Protocol: ");
Serial.println( mySwitch.getReceivedProtocol() );*/
if (mySwitch.getReceivedValue()==6819768) {
digitalWrite(RELAY_PIN_1, !digitalRead(RELAY_PIN_1));
}
}
```



```
digitalWrite(RELAY_PIN_2, !digitalRead(RELAY_PIN_2));  
}  
delay(600);  
mySwitch.resetAvailable();  
}  
}
```

and the following message comes up

```
/Users/masonjones/Documents/Arduino/libraries/xoseperez-  
fauxmoesp/src/fauxmoESP.h:106:9: error: 'WiFiEventHandler' does not  
name a type  
WiFiEventHandler _handler;  
^  
exit status 1  
Error compiling for board NodeMCU 1.0 (ESP-12E Module).
```

any change you could help me?

[Reply](#)



Sara Santos

December 14, 2018 at 5:28 pm

Hi Mason.

Can you try Belal Quamar suggestions on his comment:

“I tried compiling the above code but failed , the error was

alex_a_esp:97: error: no matching function for call to
‘fauxmoESP::onSetState(setup()):’

then i read over and found this

<https://github.com/xoseperez/espurna/issues/1141>



went over to bitbucket and downloaded version 2.4 of fauxmo here

<https://bitbucket.org/xoseperez/fauxmoesp/get/2.4.0.zip>

and it compiled”

Regards,

Sara

[Reply](#)



Mario

December 29, 2018 at 6:04 pm

Hi Rui,

I have compiled the code for ESP32 and I get this error. Can you help me ?

Greetings

Mario

*** ERROR ***

no matching function for call to ‘fauxmoESP :: onSetState (setup () ::)’

*** ERROR ***

[Reply](#)



Sara Santos

December 31, 2018 at 12:44 pm

Hi Mario



<https://github.com/xoseperez/espurna/issues/1141>

You can either use the older version or update the sketch to use the newer version.

You can go to bitbucket and download version 2.4 of fauxmo here
<https://bitbucket.org/xoseperez/fauxmoesp/get/2.4.0.zip>

I hope this helps.

Regards,

Sara

[Reply](#)



MiiCode2

January 4, 2019 at 6:02 am

Echo Dot 3 Users.

I should note that this now works with FauxmoESP 3.1.0.

You also need to make couple of code changes.

change

```
fauxmo.enable(true);
```

to:

```
fauxmo.setPort(80); // required for gen 3 devices
fauxmo.enable(true);
```

also change



```
fauxmo.onSetState([](unsigned char device_id, const char * device_name,  
bool state) {
```

to

```
fauxmo.onSetState([](unsigned char device_id, const char * device_name,  
bool state, unsigned char value) {
```

Also, when adding new devices on the Alexa App, just hit the + symbol while on devices and select Add Device and then select Other at the bottom of the list. Lamp one and Lamp two will be found.

Works perfectly. I am using the code with an ESP8266

[Reply](#)



Sara Santos

January 7, 2019 at 11:36 pm

Hi.

Thank you so much for sharing this solution. We don't have any Echo Dot 3rd generation to test the code.

However, we'll add a note with this instructions in our tutorial.

Thank you,

Regards,

Sara

[Reply](#)



Denis Brion

January 8, 2019 at 4:47 pm



Some things puzzled me:

Do alexa black boxes recognise Portuguese (or French, or Arabic) sentences?

Can one “train” this black box to cope with someone who is often hoarse?

[Reply](#)



Sara Santos

January 8, 2019 at 5:08 pm

Hi Dennis.

In my Alexa app, it supports these languages: English (with different accents), French (with different accents), Deutsch, and Chinese.

Regards,

Sara

[Reply](#)



David

January 13, 2019 at 8:04 pm

Great tutorial, thanks. I am trying to control 4 relays so I have added to your code by duplicating the lamp info and changing its I'd etc. The 3rd relay works fine but I can't get alexa to discover the 4th. Any ideas why that would be.

Thanks again for this tutorial.

[Reply](#)



**Sara Santos**

January 14, 2019 at 10:30 am

Hi David.

Without any further information, it is difficult to find out what is going on.

Sorry that I can't help.

Regards,

Sara

[Reply](#)**David**

January 20, 2019 at 12:26 am

this id the code i used, I've now lost lamp 3 aswell

```
/*
 * Rui Santos
 * Complete Project Details https://randomnerdtutorials.com
 */
```

```
#include
```

```
#include
#define RELAY_PIN_1 4
#define RELAY_PIN_2 14
#define RELAY_PIN_3 5
#define RELAY_PIN_4 12
#include "fauxmoESP.h"
```

```
#define SERIAL_BAUDRATE 115200
```



```
#define LAMP_1 "lamp one"
#define LAMP_2 "lamp two"
#define LAMP_3 "lamp three"
#define LAMP_4 "lamp four"
fauxmoESP fauxmo;

// Wi-Fi Connection
void wifiSetup() {
// Set WIFI module to STA mode
WiFi.mode(WIFI_STA);

// Connect
Serial.printf("[WIFI] Connecting to %s ", WIFI_SSID);
WiFi.begin(WIFI_SSID, WIFI_PASS);

// Wait
while (WiFi.status() != WL_CONNECTED) {
Serial.print(".");
delay(100);
}
Serial.println();

// Connected!
Serial.printf("[WIFI] STATION Mode, SSID: %s, IP address: %s\n",
WiFi.SSID().c_str(), WiFi.localIP().toString().c_str());
}

void setup() {
// Init serial port and clean garbage
Serial.begin(SERIAL_BAUDRATE);
Serial.println();

// Wi-Fi connection
wifiSetup();

// LED
pinMode(RELAY_PIN_1, OUTPUT);
```



```
pinMode(RELAY_PIN_2, OUTPUT);
digitalWrite(RELAY_PIN_2, HIGH);

// By default, fauxmoESP creates it's own webserver on the defined port
// The TCP port must be 80 for gen3 devices (default is 1901)
// This has to be done before the call to enable()
fauxmo.createServer(true); // not needed, this is the default value
fauxmo.setPort(80); // This is required for gen3 devices

// You have to call enable(true) once you have a WiFi connection
// You can enable or disable the library at any moment
// Disabling it will prevent the devices from being discovered and
// switched
fauxmo.enable(true);
// You can use different ways to invoke alexa to modify the devices
// state:
// "Alexa, turn lamp two on"

// Add virtual devices
fauxmo.addDevice(LAMP_1);
fauxmo.addDevice(LAMP_2);
fauxmo.addDevice(LAMP_3);
fauxmo.addDevice(LAMP_4);

fauxmo.onSetState([](unsigned char device_id, const char *
device_name, bool state, unsigned char value) {
// Callback when a command from Alexa is received.
// You can use device_id or device_name to choose the element to
// perform an action onto (relay, LED,...)
// State is a boolean (ON/OFF) and value a number from 0 to 255 (if
// you say "set kitchen light to 50%" you will receive a 128 here).
// Just remember not to delay too much here, this is a callback, exit as
// soon as possible.
// If you have to do something more involved here set a flag and
// process it in your main loop.

Serial.printf("[MAIN] Device #%-d (%s) state: %s value: %d\n",
```



```
// this just sets a variable that the main loop() does something about
Serial.println("RELAY 1 switched by Alexa");
//digitalWrite(RELAY_PIN_1, !digitalRead(RELAY_PIN_1));
if (state) {
    digitalWrite(RELAY_PIN_1, LOW);
} else {
    digitalWrite(RELAY_PIN_1, HIGH);
}

if ( (strcmp(device_name, LAMP_2) == 0) ) {
    // this just sets a variable that the main loop() does something about
    Serial.println("RELAY 2 switched by Alexa");
    if (state) {
        digitalWrite(RELAY_PIN_2, LOW);
    } else {
        digitalWrite(RELAY_PIN_2, HIGH);
    }
}

if ( (strcmp(device_name, LAMP_3) == 0) ) {
    // this just sets a variable that the main loop() does something about
    Serial.println("RELAY 3 switched by Alexa");
    if (state) {
        digitalWrite(RELAY_PIN_3, LOW);
    } else {
        digitalWrite(RELAY_PIN_3, HIGH);
    }
}

if ( (strcmp(device_name, LAMP_4) == 0) ) {
    // this just sets a variable that the main loop() does something about
    Serial.println("RELAY 4 switched by Alexa");
    if (state) {
        digitalWrite(RELAY_PIN_4, LOW);
    } else {
        digitalWrite(RELAY_PIN_4, HIGH);
    }
}
```

}

```
void loop() {
// fauxmoESP uses an async TCP server but a sync UDP server
// Therefore, we have to manually poll for UDP packets
fauxmo.handle();

static unsigned long last = millis();
if (millis() - last > 5000) {
last = millis();
Serial.printf("[MAIN] Free heap: %d bytes\n", ESP.getFreeHeap());
}
}
```

[Reply](#)**Sara Santos**

January 22, 2019 at 10:45 am

Hi David.

Your code seems good.

Except, you have two void #includes at the beginning of the code and you don't include the WiFi library. I'm not sure if it was an error copying the code. You also didn't set the pinMode for relay 3 and relay 4.

Do you get any errors?

[Reply](#)**David**

January 23, 2019 at 6:26 pm



Hi Sara, if I run the code as it is I don't get any errors, lamps 3,4 are just not discovered.
If I set the pinMode for relay 3 and 4 I do get an error.

Thanks.



James

February 8, 2020 at 1:36 am

Hello David. I am wondering if you have solved this problem yet? I have the same issue with pins 4, 12, and 5 being discovered, but cannot find another viable pin.

Thank you for your time.

[Reply](#)



Domenico

January 18, 2019 at 7:56 am

Dear Sara,

I am facing some problems when running this project; Let me explain a bit better to allow you to have a clear status.

I used a NodeMCU1.0, uploaded the code successfully and connected to the domestic Wifi without any problem. However, when I try to turn ON and then OFF, or viceversa using the 433Mhz Switch, the system immediately dis-connected by wifi.

It does not always happen but often causing the difficulty of reliability of the system itself. By the way, I tried to use other esp8266 and 433mhz



devices.

I tried to use alternative 433Mhz switch's but the scenario was not changed.

If you need more details, or needed some other trial runs, pls let me know. How can I solve this annoying problem? thanks for your appreciated comments. I stay tuned. Domenico

[Reply](#)



Sara Santos

January 19, 2019 at 6:38 pm

Hi Domenico.

I'm sorry you're getting that issue.

Have you tried using just the switches? Also, are you getting any errors on the serial monitor when the Wi-Fi disconnects?

Regards,
Sara

[Reply](#)



Domenico Carvetta

January 19, 2019 at 3:00 pm

Dear Sara,

I am facing some problems when running this project;

Let me explain a bit better to allow you to have a clear status.

I used a NodeMCU1.0, uploaded the code successfully and connected to the domestic Wifi

without any problem. However, when I try to turn ON and then OFF,



It does not always happen but often causing the difficulty of reliability of the system itself.

By the way, I tried to use other esp8266 and 433mhz receivers but nothing.

I removed the relay but nothing, just used only two leds as an output devices.

I tried to use alternative 433Mhz switch's but the scenario was not changed.

If you need more details, or needed some other trial runs, pls let me know.

How can I solve this annoying problem? thanks for your appreciated comments. I stay tuned. Domenico

[Reply](#)



Domenico

January 24, 2019 at 1:32 pm

Dear Sara, I come back to you on this matter. 1st) I tried the 2 switchs on theirself successfully, so that I can exclude any kind of problem with them. 2nd) I didn't see any particolar errors on the serial monitor when the Wi-Fi disconnects, but in case this data should be important to better understand, I can collect this data and drop to you. But, I guess this is not the problem root cause. I guess however that the problem is related to the connection between 433Mhz receiver pin and input pin for the NodeMCU. The first one is working to 5V, while for the second the logical is 3.3V. So that a shift level can be used. I don't believe I am the only guy that is facing this type of annoiying issue! thanks for your appreciated comments. Now I am at dead point!!

Regards,

Sara

[Reply](#)



**Sagar**

January 30, 2019 at 4:57 am

Please anyone help me

I want to programme esp nodemcu using android phone
Because I don't have laptop or computer

[Reply](#)**Sara Santos**

February 5, 2019 at 12:36 pm

Hi Sagar.

I've never tried that.

But there is some information about that here: cnx-software.com/2016/05/18/programming-esp8266-boards-with-a-smartphone/

And here: instructables.com/id/IoT-Development-With-Mobile-Directly/

I hope this helps.

Regards,

Sara

[Reply](#)**Domenico Carvetta**

February 8, 2019 at 3:53 pm

Sara any answer?



**Ringo Davis**

February 12, 2019 at 12:25 am

Where do I find RCSwitch.h?

[Reply](#)**Sara Santos**

February 14, 2019 at 6:53 pm

Hi Ringo.

You can find the RCSwitch library here: github.com/sui77/rc-switch/

Regards,

Sara

[Reply](#)**Ender Duman**

February 12, 2019 at 8:15 am

I like your Alexa ESP32 project. Really nice. Is it possible to change the voice commands? For example “Alexa, turn on hall lamp 1” and “Alexa, turn off hall lamp 1”..

Regards,

[Reply](#)

**Rui Santos**

February 12, 2019 at 7:40 pm

Yes, you need to configure/set your device name in the ESP code.

[Reply](#)**Fernando**

February 24, 2019 at 10:21 pm

Did you miss the #include
without it I get a lot of errors.

[Reply](#)**Sara Santos**

February 28, 2019 at 12:06 pm

Hi Fernando.
What do you mean?

[Reply](#)**Michele**

Very informative and interesting tutorial. I have found limitations using the Belkin account registration, which in my country requires the inclusion of a product code that I do not have. But then I solved and I still managed to communicate with Alexa. My question is: can you add more channels? maybe without using on all the RF 433 transmitter?

Thank you.

[Reply](#)



Muhammad Haris

June 23, 2019 at 1:40 pm

Hello Rui and Sara.

I am having trouble with esp32. its gives error that no such directory AsynTCP.h bla bla. but when i compile with esp8266. it compiled. but i want to interface it with esp32. plase Help me

[Reply](#)



Sara Santos

June 23, 2019 at 6:11 pm

Hi.

To use it with the ESP32, you need to install the AsyncTCP library:

<https://github.com/me-no-dev/AsyncTCP>

The ESP8266 uses the ESPAsyncTCP.

Regards,

Sara



**Reginaldo P Nogueira**

August 19, 2019 at 6:59 pm

Thanks, Sara. The project is great, very educational, simple and objective design.

I had the same issue and have it fixed with the AsyncTCP library. It compiled to ESP32 perfectly well.

[Reply](#)**Rick**

June 24, 2019 at 6:34 am

Good day! This pjt looks very interesting. I tried with ESP8266 and Echo Dot 2nd Gen. It connects to the wifi, Echo finds the devices but when I tell it to turn it on or off it says that the device is not responding... any idea?

[Reply](#)**Reginaldo P Nogueira**

August 19, 2019 at 11:31 pm

Just the same problem.

[Reply](#)

**Adrien**

August 31, 2019 at 9:38 am

I want both Outputs to be high at the same time with one command, and I really dont seem to get it Right. anyone has an idea?

[Reply](#)**Tykasan**

September 1, 2019 at 10:26 am

Create a group in your alexa mobile app or change code to match your requirements.

First solution is 1 min job.

Second will take a little bit more

[Reply](#)**adrien**

September 1, 2019 at 3:58 pm

Thx:) i also managed to change the code so that both get a high:D

[Reply](#)**Rafael Nunes**

Hi Sara Santos.

I'm using esp32 wemos lolin and I don't have the amazon echo dot device. When I try to find devices on my Alexa APP (android) no device detected. Any suggestion ? I need an amazon echo dot device on the network to make Alexa APP can detect the ESP32 ?

[Reply](#)



Paulo

October 31, 2019 at 4:34 pm

Hi, Alexa get a confirmation from ESP32 that the command completed successfully?

Can Alexa be used to inquire an ESP32 if, for instance, the water tank is full?

Thanks

Paulo

[Reply](#)



Carlos

November 19, 2019 at 11:51 am

238/5000

Hi Sara, could you help me? Please.



Through alexa, I give the command to turn on and the relay turns off. I ask to hang up and the relay turns on.

It is inverted.

[Reply](#)



Sara Santos

November 19, 2019 at 9:36 pm

Hi Carlos.

In the Arduino code, you just need to write HIGH instead of LOW and LOW instead of HIGH.

I hope this helps.

Regards,

Sara

[Reply](#)



Claudio

November 29, 2019 at 4:43 pm

Hi Sara,

I realized the project adapting it to my needs and it works well.

I wanted to ask you how I can add buttons to the Alexa APP to turn the outputs on and off without having to talk to Alexa.

I noticed that by associating commercial devices, the buttons appear on the Alexa App

Thanks for your help

Claudio Salomon



**Prav**

April 6, 2020 at 2:21 am

Hi there,

thanks so much for this tutorial.

I had a query – I have a WeMos D1 Mini Pro (running EsP8266) and the code uploaded fine, except when I use my Echo Dot (2nd Gen) to detect devices, it comes up with nothing.

Would you have any suggestions around that?

Kind regards

[Reply](#)**Bonbonkocher**

April 8, 2020 at 10:38 am

detect devices, 1 device, 2 devices or more ?

i cam max. detect for 3 devices

[Reply](#)**Josh**

April 24, 2020 at 9:23 pm



Love the code and have had a fair amount of success use 3rd gen echo. Everything works however sometimes I have to ask Alexa twice. The first time she'll claim the device is not responding, on the 2nd time I ask it always works. Do you know why this might be? Or does anyone have any suggestions that might remedy this?

Thank you for your hard work

Josh

[Reply](#)



Richard D Marbury

September 16, 2020 at 5:59 am

First of all many thanks for the tutorial it worked like a dream for me.I am using it to control a linear actuator.I had to change some highs and lows to get it to work as expected .I am terrible at coding and don't understand it enough to make to many changes.I was wondering if there is a way to make the code just pulse a high for maybe a second and return low.Maybe this is not possible with Alexa and I'll just have to issue a on and off command.Anyway it works for me and I am thankful for your hard work.Thanks again.

[Reply](#)



Richard D Marbury

October 4, 2020 at 7:58 am

plus something extra never could get my cheap receivers to reach more than 2 motors. After cutting antennae for over a week i switched to DVBS



receivers.i didn't try to tune my antenna because it works great for what i need it for over 15 feet.

[Reply](#)



Franklin Jones

November 17, 2020 at 7:46 pm

I cannot get Alexa to recognize my ESP8266 when attempting to run the Alexa (Echo) with ESP32 and ESP8266 – Voice Controlled Relay project. I was able to discover the ESP8266 using Sincric App. Is the FauxmoESP library still working with the ESP8266?

[Reply](#)



Robert Edwards

December 8, 2020 at 8:14 am

Hi

This is a really well set out project and I've learnt a lot just by following it. However, I cant get my Echo 4th gen to discover the device. Are the ports changed perhaps with this Echo gen?

[Reply](#)



Sara Santos

December 8, 2020 at 3:27 pm



Hi.

I'm not sure if the library supports 4th generation:

<https://github.com/vintlabs/fauxmoESP#troubleshooting>

Regards,

Sara

[Reply](#)



Paul Vint

December 13, 2020 at 7:39 pm

I haven't tested with a 4th gen device yet, but do note that there has been a change on the Echo devices in the past few months and the old versions of FauxmoESP have issues with device discovery. Recommend to use the latest version v3.1.2 (available in Arduino Library Manager or

<https://github.com/vintlabs/fauxmoESP>

[Reply](#)



Colin W

December 29, 2020 at 12:57 am

I was successful on this project! Thanks for posting and sharing.

Question: Is there any way to adjust the code to make it a momentary switch when I tell Alexa to turn something on? Have Alexa turn something on, delay for a second, and then it turns back off?

[Reply](#)



**Colin W**

December 29, 2020 at 3:04 pm

Nevermind. I figured it out! Thanks!

[Reply](#)**Richard D Marbury**

December 30, 2020 at 9:31 am

you figured it out. please let us know how.

[Reply](#)**Colin W**

December 30, 2020 at 10:49 pm

Found some code on this webpage. He uses Rui's code with some additions that do what I was looking for.

[instructables.com/Alexa-Enabled-Garage-Door-Controller-for-25/](https://www.instructables.com/Alexa-Enabled-Garage-Door-Controller-for-25/)

What he does with the variable toggle1 achieves the result I was looking for.

[Reply](#)

**Thiago Augusto Alvares de Almeida**

January 12, 2021 at 10:44 am

Good morning, can someone help me? I have a problem when registering more than three devices, alexa cannot recognize, when it is two or three she recognizes normally, if passing three doesn't work?

[Reply](#)**BrendonHills**

February 3, 2021 at 8:40 am

Super easy to do – great tutorial. Thought I would share a learning point for others. I got rid of the code for the RF switch and attached LEDs instead of relays, using different pins. I couldn't understand why in the serial monitor the WiFi kept cycling and Alexa could not discover. I had addressed the pins as #define ENTER_PIN 5 and similar for pins 6 and 7. As soon as I realised I had addressed them incorrectly and used the board labels, i.e. D5, D6 and D7, all was good! Silly mistake but soon spotted. Many thanks for all your wonderful work – you are my go-to site for tutorials.

[Reply](#)**Akshay Sharma**

February 7, 2021 at 10:02 am

I have built a gateway that works on ESP32. The gateway controls the



can simply forward a string to ESP32, like, if the user says “Alexa, turn on light in kitchen”, then, Alexa should forward “TURN ON LIGHT IN KITCHEN” to ESP32.

[Reply](#)



Simran

February 14, 2021 at 7:21 am

Hi, I am having trouble connecting Alexa with my NodeMCU. Could someone please help me with this? Thank you

[Reply](#)



Fabrizio M. Bianchi

March 23, 2021 at 7:38 pm

Hi, I had successfully implemented the project on a Node MCU v. 12F , an ESP32 WROOM and an ESP8266-01S. Alexa was able to recognise the devices (different names) and I could use voice commands to switch on and off the two relays. All this happened at the end of 2020.

Recently, after these successful experiments, I decided to start building a few smart plugs based on ESP8266-01S and, therefore, I cancelled all the experimental devices from Alexa Smart Home device list.

It's two weeks that I'm desperately try to have the whole system working again. The code is the same of the experiment, that is yours, but Alexa doesn't find the device anymore.

Please note that, out of desperation, I've loaded again the code on the Node MCU, on the ESP32 WROOM with the same results: No device



discovery of devices based on fauxMo?

Any help or suggestion are very very welcome

Thank you

[Reply](#)



Eric Thomas

March 24, 2021 at 4:59 pm

Is there a way to combine what we learn in home automation using the RF signal with alexa? I would like to use the RF controlled outlets with alexa using the esp8266

[Reply](#)



Fabrizio M. Bianchi

March 26, 2021 at 11:29 am

Eventually it started working again. After seeing that the “Alexa no longer able to discover a device with fauxmoESP” has been a frequent problem, I’ve continued to browse internet and found that there is a very recent fauxmoESP library (v. 3.3) that was meant to solve the problem.

I’ve installed it, cleaned Alexa’s list of smart home devices created with fauxmoESP, rebooted two of my Alexa and it has worked fine (so far tested just the ESP8266-01S).

I’ve tested it a few times, each time cancelling the device discovered by Alexa and changing the names associated to LAMP_1 and LAMP_2 and it worked each time.

In addition I’ve modified the sketch removing the RF Switch and adding



the strongest SSID.

Many thanks for this project that has been quite inspiring.

[Reply](#)



Krish

April 5, 2021 at 3:43 am

Hello.

How do I enable Alexa to understand something other than turn on/off?

For ex, “take a photo”, “print the photo” etc. Thanks in advance!

-Krish

[Reply](#)



Fabrizio M. Bianchi

April 7, 2021 at 10:18 am

The question is a bit vague as it doesn't say which smart device you want to control with Alexa. If you want to have a more articulated, case specific, utterance, you should try creating a routine using Alexa app. You name a routine, you define the relevant utterance, specify a list of actions (say: switch on DEVICE_1, attend 30 seconds, switch off DEVICE_1) and that's it.

If you really want to do something like “take a photo”, “print a photo” you need a camera and a printer that are Alexa compatible. I am not sure they exist and, in addition, all this implies an AI level that, IMHO, is beyond the current capabilities

[Reply](#)



**Krish**

April 7, 2021 at 1:44 pm

Thank you for the response. Its true that probably they dont exist but thats what I building. My idea is to connect the remote shutter release to a relay connected with ESP8266. This will serve as a photo booth. My specific question is, lamp one is defined in the code as '#define LAMP_1 "lamp one"' and Alexa understands "turn on" and "turn off" with lamp one. How do I make Alexa to process different "verbs" is my question.

[Reply](#)**Massimo**

April 7, 2021 at 4:27 pm

I think do you need another alexa skill, the on/off lamp is based on lamp skill it is not possible to alexa understands what you want

[Reply](#)**Massimo**

April 7, 2021 at 4:25 pm

@Fabrizio M. Bianchi, do you also have the same problem as me in the alexa skill when ask 25% and 75% not work and says "the device is not able to set this parameter" or some like this? all other percentage works



thanks
Massimo

[Reply](#)



Fabrizio

April 22, 2021 at 10:15 am

Sorry for the delay Massimo, I thought to have replied. I'm using this device to control an electric roller shutter and, therefore, it's just an Alexa routine that makes ON – count 30 sec – OFF.

I'm not able to help you

[Reply](#)



Mike

April 16, 2021 at 11:24 pm

This is a really great example of how to implement 433MHz switch with decoding...

Anyway, I'm curious if we use the switch then does Alexa state get updated?

I cannot see in code how that would occur.

Can you confirm that Alexa status is updated with switch?

[Reply](#)



Hi all, I'm facing weird behaviour of this system.

My system is based on an ESP8266-01S module, a breakout board with two relays and a slightly modified sketch as I've added a WiFiMulti feature and assigned the IP address as I have to control 5 electric roller shutters in different rooms and, of course, I want to be able to identify each of them. The weird thing is that, after a few days of normal operations (the electric roller shutter under test goes up or down accordingly to the commands given to Alexa) the system become irresponsive after the last execution and the relevant relay stays stuck ON.

The ESP8266 is connected to the WiFi, it has the assigned IP address, Alexa sees it and issues the commands but, as I wrote, it is irresponsive. Even if I power it down, when restarted the system is stuck in the status it had before power down with the relay stuck ON.

Only resetting the ESP8266 for a few seconds (5-10) it reverts to normal conditions and it's ready to accept commands.

(I put a reset button on RST pin, with 470 Ohm to GND and 10 KOhm to 3.3V and a 10uF electrolytic cap from the RST pin to GND)

Has anybody an idea of what could be the cause of this weird, and annoying, behaviour?

[Reply](#)



Nafis

September 4, 2021 at 2:37 pm

Do I need internet connection to use Alexa? Or local network is okay?

[Reply](#)



Sara Santos



Hi.
You need internet.
Regards,
Sara

[Reply](#)



Raj

October 8, 2021 at 4:04 pm

Awsome IOT project with AWS

[Reply](#)



Yoav Golan

October 25, 2021 at 12:27 pm

Hello,
I try to run the code on ESP32.

I copied the code and installed the library but i get the following error:
Arduino: 1.8.13 (Windows 10), Board: “DOIT ESP32 DEVKIT V1, 80MHz,
921600, None”

Multiple libraries were found for “WiFi.h”

In file included from
C:\Users\Yoav\Documents\Arduino\smarthome3\smarthome3.ino:18:0:



Used:

C:\Users\Yoav\AppData\Local\Arduino15\packages\esp32\hardware\esp32\\1.0.5\libraries\WiFi

C:\Users\Yoav\Documents\Arduino\libraries\FauxmoESP\src/fauxmoESP.h
:64:26: fatal error: AsyncTCP.h: No such file or directory

Not used: C:\Program Files (x86)\Arduino\libraries\WiFi

compilation terminated.

exit status 1

Error compiling for board DOIT ESP32 DEVKIT V1.

This report would have more information with
“Show verbose output during compilation”
option enabled in File -> Preferences.

[Reply](#)



Sara Santos

October 25, 2021 at 2:41 pm

Hi.

How did you install the library?

It says you need to install the AsyncTCP library.

Click on the following link to download the library: <https://github.com/me-no-dev/AsyncTCP/archive/refs/heads/master.zip>

Then, in your Arduino IDE, go to Sketch > Include Library > Add .ZIP library and select the ZIP file you've just downloaded.

Regards,

Sara

[Reply](#)



**Luis**

November 18, 2021 at 12:03 am

Hi Sara and Rui,

Thanks a lot for this tutorial. It is great for a beginner like me.

I tried it with a Wemos D1 mini and an Amazon Echo Dot 3(? have to check). I haven't actually connected anything, I just wanted to check whether the pins switch high-low accordingly, and will complete my project later on.

Everything was fine, Alexa detected the "lamps" and I saw through the serial monitor that some communication was actually happening (nice!)

00:44:26.585 -> Free heap: 50656 bytes

00:44:30.789 -> [MAIN] Device #0 (lamp one) state: ON value: 255

00:44:30.789 -> RELAY 1 switched by Alexa

00:44:30.837 -> [MAIN] Device #0 (lamp one) state: ON value: 254

00:44:30.837 -> RELAY 1 switched by Alexa

But the pins did not switch. I measured between Pin D2 and Ground, and got 0 V all the time, and between D5 and ground 3.3 V all the time.

Any advice?

Please let me know. Perhaps I am missing some simple step somewhere. I commented out everything related to RCSwitch as I am not planning to use that.

Thanks,

Luis

[Reply](#)



**Makwana**

November 24, 2021 at 3:56 pm

Hi Sara and Rui,

I combine yours and other projects in single LOLIN board for my home automation.

was using IFTTT but now IFTTT is not supporting many I/O so its useless for me.

I was controlling 3 lights, one socket and full control of my LG AC. it has 3 way of control

1. with IR remote
2. with PC browser
3. Google Assistant (via IFTTT)
4. as well as with android http shortcut.

Now as IFTTT is useless, I tried to switch to ALEXA on PC and on Android. but Alexa doesn't discover my devices neither fro PC nor from Android (I don't own echo or any hardware from amazon with Alexa)

My question: does Alexa on PC or Android supports the device discover or control????

I couldn't find any answer through googlebaba!!!!

Regards,

Makwana

[Reply](#)

**Fabrizio**

April 3, 2022 at 7:39 am



Hi to everybody,

after having assembled three devices (two based on ESP8266 – 01S and one on Mini ESP32 D1) all discovered and properly managed by Alexa, yesterday I've built a fourth one, based on Mini ESP32 D1, and there is no way of having Alexa to discover it.

Please note that the previous three devices were based on fauxmoESP library version 3.3.1 (they were assembled in 2020-2021) while today the library has reached version 3.4.0.

Also note that the four modules connect to WiFi without any issue.

I've then reverted to the old library, 3.3.1, but with no success.

Has anybody any idea or suggestion on how to overcame this situation?

This project is really nice and useful (I've deleted the RF controlled part as I don't need it and added Multi WiFi, fixed IP and auto reconnect features) and I've a few more places, at home, where I'd like to use it.

Please help!

[Reply](#)



Mike H

August 15, 2022 at 4:26 pm

Can you share what your code looks like?

Sometimes it helps to cycle the power on your Alexa device, have you tried that?

[Reply](#)



fabriziomaria.bianchi@gmail.com

August 17, 2022 at 7:33 am



based switches and relaunching a device search from one of the Alexa's at home. All the ESP8266 and ESP32 have been found and are controllable by voice.

I believe that sometimes it's useful to clean that list from possible leftovers of previous developments based on the same ESP module (I guess the system keeps track and associates IP addresses and MACs)

[Reply](#)



Dattatraya Apte

May 14, 2022 at 8:30 am

Will this project work with alexa Show 5

[Reply](#)



Harsh Desai

July 11, 2022 at 6:37 pm

Can I send integers to ESP8266? I want to control a motor with Alexa. So, I want it to send integers to the ESP8266. Suppose, I want to set the speed to 3000 rpm, so I will command trigger Alexa by saying "Alexa, set the speed to 3000 rpm" so that Alexa can return the value 3000 to the ESP8266. So I can use that value to set the variable value. Any help will be appreciated.

Thank You
Harsh Desai



**John Lawton**

July 12, 2022 at 5:20 pm

Hi Sara,

thank you so much for all the brilliant tutorials on this site. I noticed (July 2022) that I had to use the latest versions of the software components to get my Echo Show 8 to work okay, especially fauxmoESP which has now moved to Github: <https://github.com/vintlabs/fauxmoESP> and the bitbucket link given is now out of date.

What a thrill to be able to control a couple of LEDS using Alexa!

John

[Reply](#)

**Miguel**

July 19, 2022 at 5:46 pm

Hi, I really like your work,

You can create the same but for a DS18B20 temperature sensor.

Thanks

[Reply](#)

**James Cotter**

August 2, 2022 at 3:46 pm

I skipped the wall switches and was able to get Alexa to find the light. I was going to use GPIO 14 to trigger on a relay so I setup an led on a breadboard to test it first and all it does is blink? Is there anything obvious you can recommend?

[Reply](#)**fabriziomaria.bianchi@gmail.com**

August 15, 2022 at 6:37 am

Hi, I'm happily using three of these circuits and I skipped the RF wall switches as well. Two of them are based on ESP8266 and one on ESP32. As I completed the assy and the installations many months ago, I don't remember all what I did to make them work but I'm sure it was reasonably straightforward . What I'm sure of is that I was using the Serial Monitor to check the regular operations of the system even before adding any external HW.

My suggestion is to run the system, without anything attached to the GPIO you have chosen and to check the messages on the serial Monitor. if the behaviour is what expected then you may have some HW problem otherwise you have to look into the sketch. Hope this helps

[Reply](#)**James Cotter**

August 15, 2022 at 8:00 pm



[Reply](#)**Paul**

August 3, 2022 at 9:51 pm

I found it much easier to use Tasmota. I flash the esp8266 and check the Belkin box and Alexa finds it with no problem. Tasmota has the nice web page that make setup easy. You use it to map the pins to the relays, etc.

[Reply](#)**James Cotter**

August 4, 2022 at 10:46 pm

Tasmota sounds good will try that Thanks

[Reply](#)**Mauro**

March 20, 2023 at 5:48 pm

Just maybe a stupid question. I would like to integrate it into my program but I already have a webserver running on my 8266 on port 80. So how manage the thing? I would not to change the webserver to another port!

[Reply](#)

**Bernard**

April 8, 2023 at 7:18 pm

Good morning Sara, just to ask if the code still works or is it already outdated since I tried but my Alexa devices can no longer find the device, thanks

[Reply](#)**Fabrizio**

April 11, 2023 at 6:43 am

Currently I've six devices based on this project, which are fully operational. However they have been built, and registered by Alexa, in 2020-2022 timeframe. I cannot tell if a new one would be recognized today. Sometimes the AP drops one of them, for unknown reasons, but, after a few hours, or a reset, for other unknown reasons it is again added to the pool of devices managed by Alexa. The only suggestion I can give is to look at the list of devices on the Alexa page, on Amazon, and manage the old and the new devices from there.

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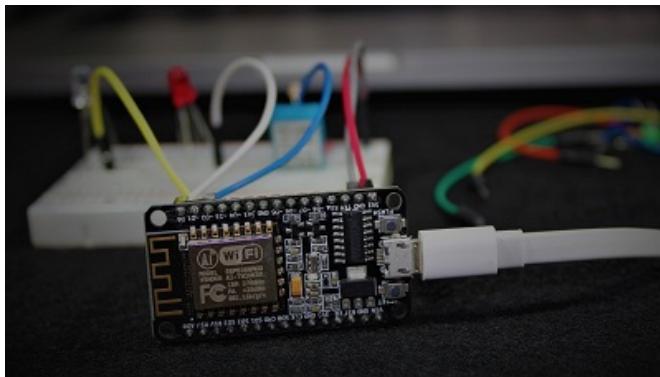
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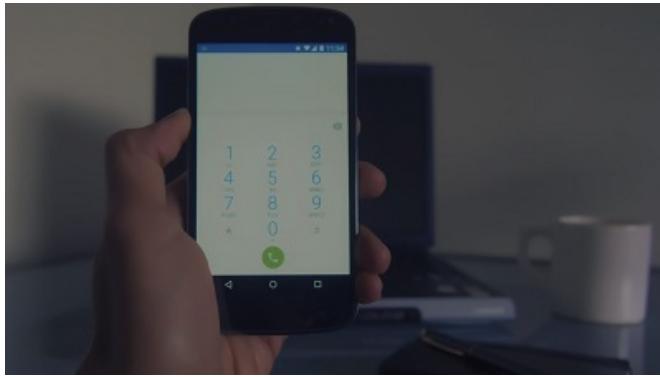


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