

SYNTHIAM

synthiam.com

Using Amazon Echo (Alexa) as microphone for Synthiam

In searching for a noise tolerant microphone for my EZ-Robot AdventureBot I checked out the Amazon Echo product which has a great feature in its always-on array microphones. You can even place several low-cost Echo Dots (\$50) around your home to enable multi room use. The problem was how to get it to talk to EZB.

The answer is, as pointed out by @Mickey666Maus in a previous post, the free web service called IFTTT (If This Then That). IFTTT has a built-in interface (Channel) that supports Amazon Echo and includes a user defined Channel called Maker that offers a means to send http commands to devices.

Last Updated: 4/16/2018

Ⓢ Create EZ-Builder project and add controls

Add an HTTP Server Control (NOT the HTTP Custom Server), set port number (8010 in my example) and START the server

Add a Movement Panel Control for your robot

Simple commands such as forward() can be added in IFTTT

Optional: If creating complex scripts, add Script Manager Control

Here is an example from @DJ of a more complex script

```
``` SayEZB("I have " +round( ( ( getvoltage() - 7 ) / 1.2 ) * 100, 1 ) + " percent battery remaining")```
```

## Router setup

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Since the Amazon Echo will only send IFTTT commands to public IP addresses, even if the Echo is on the same Wi-Fi network as your EZ-Builder device, you will need to setup port forwarding on your router to send the port assigned to your HTTP server.

The setting is router dependent and can usually be found in the firewall section. I recommend forwarding both TCP and UDP ports

Optional: If your router is subject to frequent public IP address changes, consider a free service like DnyDns.org to provide a public name for your IP address

## Ⓢ Setting up IFTTT

Create an IFTTT account and login and select My Applets

Create a new Applet and select Amazon Alexa Channel as the "IF" part and enter a phrase (must be all lower case)



# Complete trigger fields

Step 2 of 6

## Say a specific phrase

This trigger fires every time you say "Alexa trigger" + the phrase that you have defined. For instance, if you set "party time" as the phrase, you can say "Alexa trigger party time" to have your lights loop colors. Please use lower-case only.

What phrase? (required)

Use lower-case characters only

**Create trigger**

Choose Webhooks as the "That" part

[← Back](#)



# Choose action

Step 4 of 6

## Make a web request

This action will make a web request to a publicly accessible URL. NOTE: Requests may be rate limited.

NOTE: Capitalization and NO spaces!!! Enter YOUR public IP address and enter the Web Request and set the type to text/plain

# Make a web request

This action will make a web request to a publicly accessible URL. NOTE: Requests may be rate limited.

## URL

```
http://23.119.244.175:8010/Exec
?
password=admin&script=forward
()
```

Surround any text with "<<<" and ">>>" to escape the content

Add ingredient

## Method

GET

The method of the request e.g. GET, POST, DELETE

## Content Type

text/plain

Optional

## Body

Surround any text with "<<<" and ">>>" to escape the content

Add ingredient

Create action

Save the Applet

## Ⓢ Test the setup

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At a minimum, you will need the Echo working, router configured and EZ-Builder running. You can connect the robot later

When you speak the trigger phrase to Echo, it will respond with a "Sending to IFTTT" verbal response. Please note that you must use the "wake word" e.g. "Alexa" and "Trigger" to get the Echo to search for the phrases.

Optional: You can change the Echo wake word from "Alexa" to "Echo" or "Computer"



Check the EZ0Builder to see that the script manager logs your verbal commands

Connect the robot now and see if the EZB responds to the commands


Optional: If you prefer a handheld remote mic, just add the \$30 "Alexa Voice Remote for Amazon Echo"

here is a video of the process


and... one other option.. you can use the Amazon Shopping app on your iPhone to send commands to IFTTT... note, no actual Amazon Echo hardware required!


Q What are you looking for?  

Now with Alexa  
— Just Press & Ask —  
**fire** \$49<sup>99</sup>





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 **Save on HP Toner**





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Your recommendations






Dinty Moore Beef Stew, 10-Ounce Packages (Pack of 6)  
\$11.82







Del Monte Mixed Fruit/Peaches Snack Cup, 4 Pound  
\$7.11




Rice a Roni Cups, Chicken, Individual Cup (Pack of 12 Cups)  
\$12.00

AT&T Wi-Fi 10:51 AM   


 


Q What are you looking for?  

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\$12.00

See more Try: "Where's my stuff?" >



here is the video.

## 🔍 Troubleshooting

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If your the IFTTT applet runs, but doesn't connect to the EZ-Builder program, check to see that you have the public IP address and port number correct and that port forwarding is setup in your router. It will also show an "Applet skipped" in the IFTTT log

A quick test for this to just use a web browser to connect to that IP address with port number and it should bring up the internal web page that the EZB offers

If the Echo says "I don't see that IFTTT trigger" it means that you are not exactly speaking the phrase any of the Applets is looking for