

# AWS IoT Core & ESP32

14 July 2022 13:25

## Creating a Thing

AWS IoT > Manage > Things

**Things (0)** [Info](#)

An IoT thing is a representation and record of your physical device in the cloud. A physical device needs a thing record in order to work with AWS IoT.

[Refresh](#) [Advanced search](#) [Run aggregations](#) [Edit](#) [Delete](#) [Create things](#)

Filter things by: name, type, group, billing, or searchable attribute.

| Name                                | Thing type |
|-------------------------------------|------------|
| No things                           |            |
| No things to display in this Region |            |
| <a href="#">Create things</a>       |            |

**Policy document** [Info](#)

An AWS IoT policy contains one or more policy statements. Each policy statement contains actions, resources, and an effect that grants or denies the actions by the resources.

[Builder](#) [JSON](#)

| Policy effect | Policy action | Policy resource                                    |                        |
|---------------|---------------|--|------------------------|
| Allow         | iot:Connect   | arn:aws:iot:us-east-1:857737846774:esp32/connect   | <a href="#">Remove</a> |
| Allow         | iot:Publish   | arn:aws:iot:us-east-1:857737846774:esp32/publish   | <a href="#">Remove</a> |
| Allow         | iot:Receive   | arn:aws:iot:us-east-1:857737846774:esp32/receive   | <a href="#">Remove</a> |
| Allow         | iot:Subscribe | arn:aws:iot:us-east-1:857737846774:esp32/subscribe | <a href="#">Remove</a> |

[Add new statement](#)

AWS IoT > Manage > Things > Create things > Create single thing

Step 1  
**Specify thing properties**

Step 2 - optional  
Configure device certificate

Step 3 - optional  
Attach policies to certificate

**Specify thing properties** [Info](#)

A thing resource is a digital representation of a physical device or logical entity in AWS IoT. Your device or entity needs a thing resource in the registry to use AWS IoT features such as Device Shadow, events, jobs, and device management features.

**Thing properties** [Info](#)

Thing name  
esp32\_AWS\_MQTT

Enter a unique name containing only: letters, numbers, hyphens, colons, or underscores. A thing name can't contain any spaces.

**Additional configurations**

You can use these configurations to add detail that can help you to organize, manage, and search your things.

- ▶ Thing type - optional
- ▶ Searchable thing attributes - optional
- ▶ Thing groups - optional
- ▶ Billing group - optional

AWS IoT > Manage > Things > Create things > Create single thing

Step 1  
**Specify thing properties**

Step 2 - optional  
**Configure device certificate**

Step 3 - optional  
Attach policies to certificate

**Configure device certificate - optional** [Info](#)

A device requires a certificate to connect to AWS IoT. You can choose how you to register a certificate for your device now, or you can create and register a certificate for your device later. Your device won't be able to connect to AWS IoT until it has an active certificate with an appropriate policy.

**Device certificate**

☒ Auto-generate a new certificate (recommended)  
Generate a certificate, public key, and private key using AWS IoT's certificate authority.

☐ Use my certificate  
Use a certificate signed by your own certificate authority.

☐ Upload CSR  
Register your CA and use your own certificates on one or many devices.

☐ Skip creating a certificate at this time  
You can create a certificate for this thing and attach a policy to the certificate at a later time.

[Cancel](#) [Previous](#) [Next](#)

# Attach policies to certificate - optional [Info](#)

AWS IoT policies grant or deny access to AWS IoT resources. Attaching policies to the device certificate applies this access to the device.

**Policies (0)**  
Select up to 10 policies to attach to this certificate.

Create policy

Q

Filter policies

< 1 >

Name

No policies

No policies could be found in us-east-1.

[AWS IoT](#) > [Security](#) > [Policies](#) > [Create policy](#)

## Create policy [Info](#)

AWS IoT Core policies allow you to manage access to the AWS IoT Core data plane operations.

**Policy properties**  
AWS IoT Core supports named policies so that many identities can reference the same policy document.

Policy name

ESP32\_policy

A policy name is an alphanumeric string that can also contain period (.), comma (,), hyphen (-), underscore (\_), plus sign (+), equal sign (=), and at sign (@) characters, but no spaces.

Tags - optional

**Policy statements**

**Policy examples**

**Policy document** [Info](#)

Builder

JSON

An AWS IoT policy contains one or more policy statements. Each policy statement contains actions, resources, and an effect that grants or denies the actions by the resources.

| Policy effect | Policy action | Policy resource                                  |        |
|---------------|---------------|--|--------|
| Allow         | iot:Connect   | arn:aws:iot:region:account:resource/resourceName | Remove |
| Allow         | iot:Publish   | arn:aws:iot:region:account:resource/resourceName | Remove |
| Allow         | iot:Receive   | arn:aws:iot:region:account:resource/resourceName | Remove |
| Allow         | iot:Subscribe | arn:aws:iot:region:account:resource/resourceName | Remove |

Add new statement

Cancel

Create

IoT Page 2

AWS IoT Core is **a managed cloud service that lets connected devices easily and securely interact with cloud applications and other devices**. AWS IoT Core can support billions of devices and trillions of messages, and can process and route those messages to AWS endpoints and to other devices reliably and securely.

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