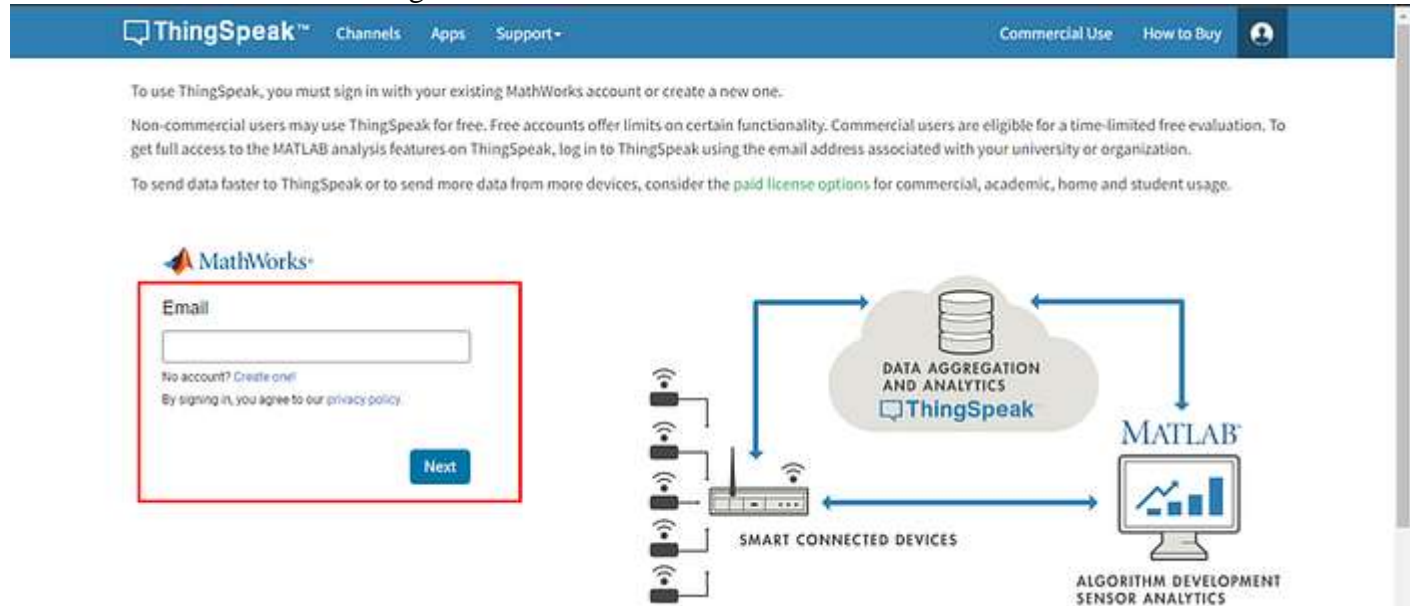


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Step 1

To get these credentials, first, create a channel in ThingSpeak. Login or Create an account in MathWorks.

Press enter or click to view image in full size



Step 2

Click on **New Channel**.

Press enter or click to view image in full size



Step 3

Fill in the necessary blocks including Project Name and Column Names. As this project is about ultrasonic simulation, the project name is **Ultrasonic Simulation** and it has only one attribute **Distance**, so the field name is the distance where distance measures (values) will be stored.

Press enter or click to view image in full size

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ThingSpeak™ Channels Apps Devices Support Commercial Use How to Buy MKC

New Channel

Name:

Description:

Field 1: ☒

Field 2: ☐

Field 3: ☐

Field 4: ☐

Help

Channels store all the data that a ThingSpeak application collects. Each channel includes eight fields that can hold any type of data, plus three fields for location data and one for status data. Once you collect data in a channel, you can use ThingSpeak apps to analyze and visualize it.

Channel Settings

- **Percentage complete:** Calculated based on data entered into the various fields of a channel. Enter the name, description, location, URL, video, and tags to complete your channel.
- **Channel Name:** Enter a unique name for the ThingSpeak channel.
- **Description:** Enter a description of the ThingSpeak channel.
- **Field#:** Check the box to enable the field, and enter a field name. Each ThingSpeak channel can have up to 8 fields.

Step 4

Scroll down and Click on **Save changes**.
Press enter or click to view image in full size

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Link to Channel

Elevation:

Show Channel Location: ☐

Latitude:

Longitude:

Show Video: ☐

Video URL:

Show Status: ☐

Using this Channel

You can get data into a channel from a device, website, or another ThingsSpeak channel. You can then visualize data and transform it using ThingSpeak Apps.

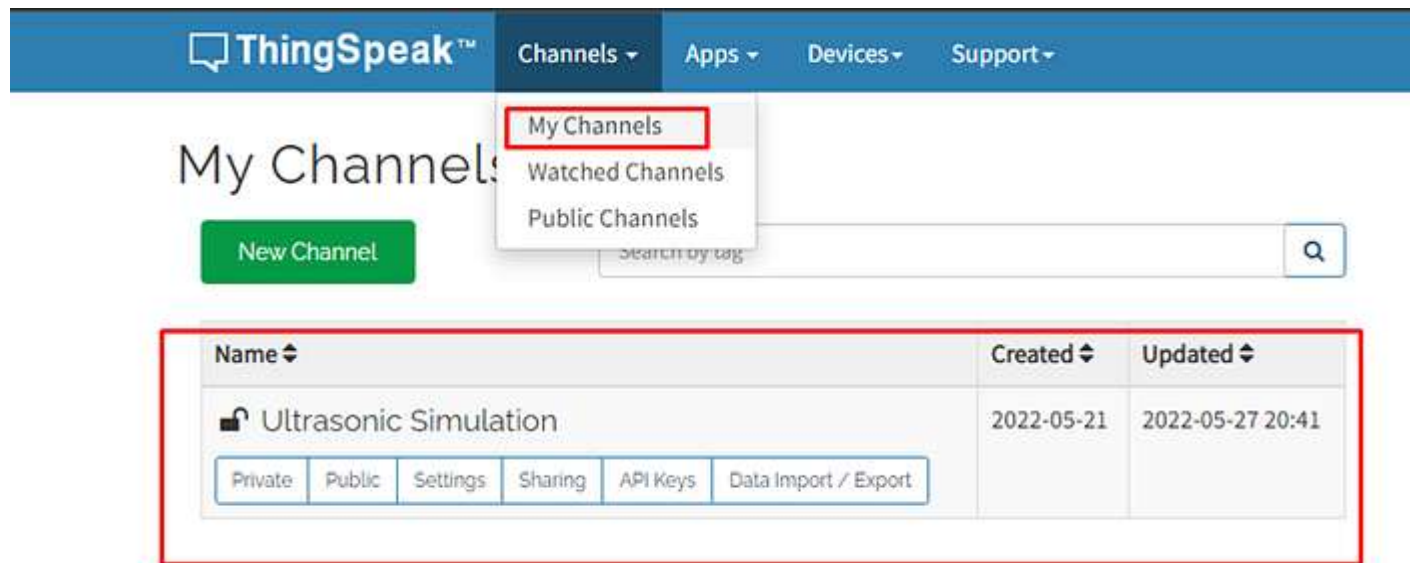
See [Get Started with ThingSpeak™](#) for an example of measuring dew point from a weather station that acquires data from an Arduino® device.

[Learn More](#)

Step 5

To see your channel, Click on **Channels > My channels > Ultrasonic Simulation**.
Press enter or click to view image in full size

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Step 6

The **Channel ID** will be given below the Project Name.
Press enter or click to view image in full size

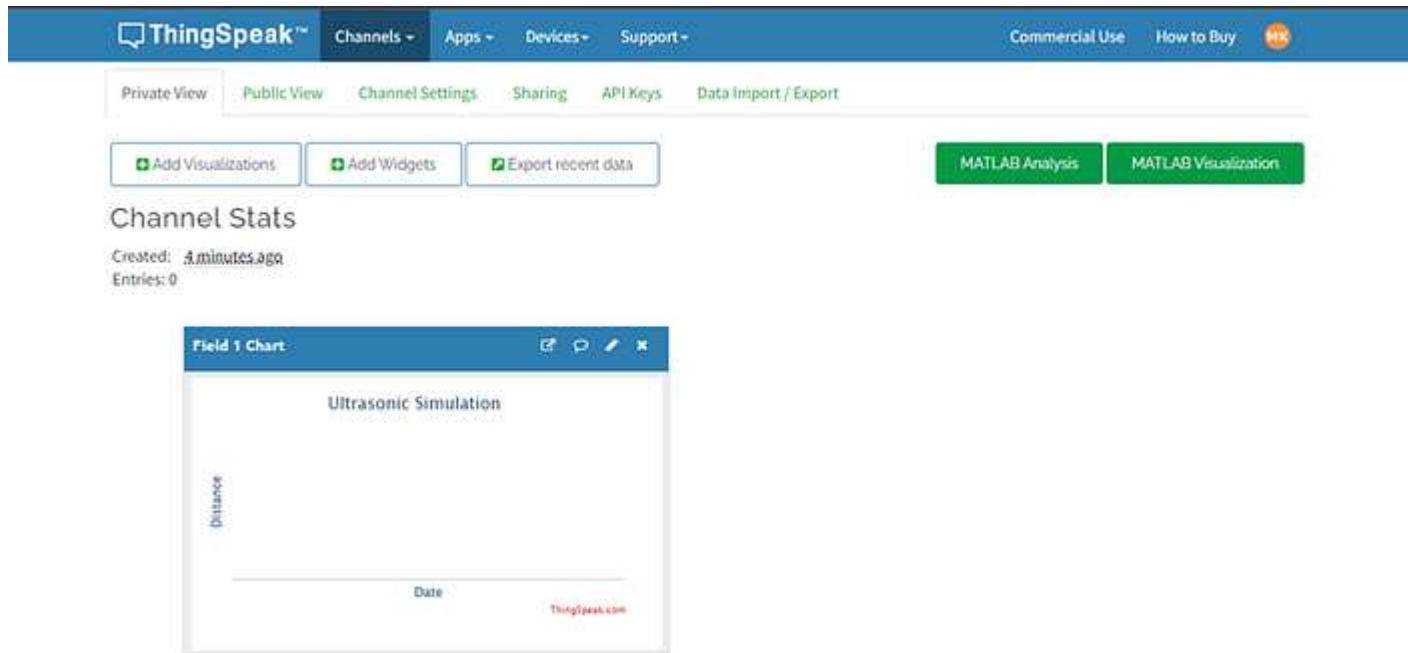


Step 7

Scroll down the page and see the graph where distance will be visualized during the simulation.

Press enter or click to view image in full size

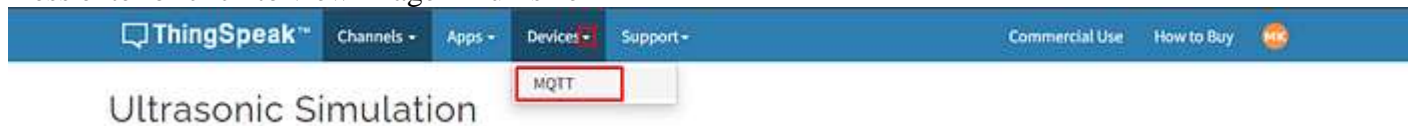
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Step 8

Now to get the credentials of MQTT, create the MQTT Device. Click on **Devices** > **MQTT**.

Press enter or click to view image in full size



Step 9

Click on **Add a new device**.

Press enter or click to view image in full size



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Step 10

The dialogue box will pop up, enter the name of the MQTT device and select a previously created channel.

Add a new device

Device Information

Name*

project

Description

Enter optional information about this device for later reference.

Authorize channels to access ⓘ

-- Select a Channel --

Your Channels & Public Channels

-- Enter a channel ID below --

Your Recent Channels

Ultrasonic Simulation (1750665)

Add Channel

Authorized Channel ⓘ

Allow Publish

Allow Subscribe

No channels authorized.

Cancel

Add Device

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Step 11

Click on **Add Channel > Add Device**.

Add a new device

Device Information

Name*

project

Description

Enter optional information about this device for later reference.

Authorize channels to access ⓘ

-- Select a Channel --

...

Add Channel

Authorized Channel ⓘ	Allow Publish	Allow Subscribe
Ultrasonic Simulation (1750665)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Cancel

Add Device

Step 12

The dialogue box will pop up where the credentials of MQTT will be given. Click on **Download Credentials**.

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New Device Added

Device Information

ThingSpeak has added a new MQTT device and authorized it to access the channels you selected.

Device Name: project

MQTT Credentials

Use these MQTT credentials to publish and subscribe to ThingSpeak channels. [Learn More](#)



Client ID

Username

Password

ThingSpeak does not store a copy of your device's MQTT password.
Download or copy it to keep it safe.

Download Credentials ▾