

Create the ThingSpeak channel

To be able to send weather data from the LoRa Weather Station to a ThingSpeak channel it is need to take a few steps.

- 1) First of all login on the platform¹ with the following email and password:

Email: noitedoinvestigador@unparallel.pt

Password: NoiteInvestigador2017

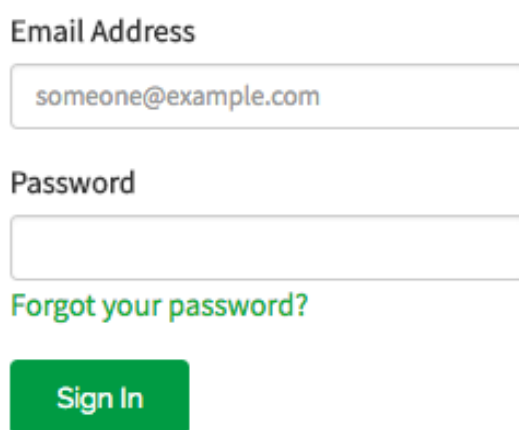
The image shows the login interface of the ThingSpeak platform. It features two input fields: 'Email Address' with the placeholder text 'someone@example.com' and 'Password'. Below the password field is a green link that says 'Forgot your password?'. At the bottom of the form is a green button with the text 'Sign In' in white.

Figure 1 – Login on the ThingSpeak platform.

After insert, the email and the password click in the green “Sign In” button.

- 2) After sign in, go on the top bar “Channels”, “My channels” and then click in “New Channel” like in the following figure

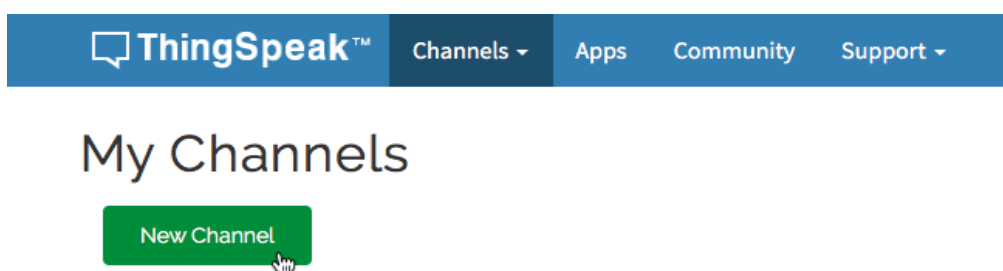
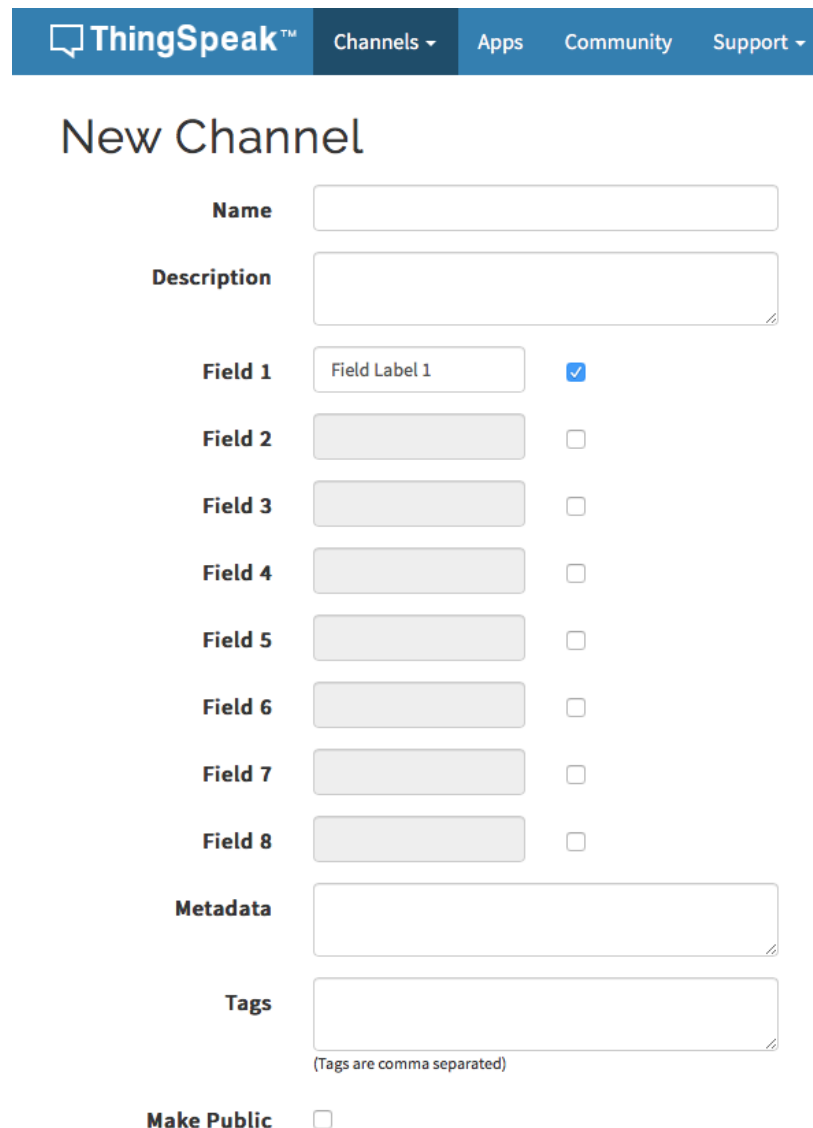


Figure 2 – Create a new channel in ThingSpeak.

¹ <https://thingspeak.com/>

3) Fill “Name” and “Description” boxes with information about the new ThingSpeak.



The screenshot shows the 'New Channel' form on the ThingSpeak website. At the top is a blue navigation bar with the ThingSpeak logo and links for Channels, Apps, Community, and Support. The main heading is 'New Channel'. Below this are several input fields: 'Name' (a single-line text box), 'Description' (a multi-line text box), and eight 'Field' boxes. 'Field 1' is pre-filled with 'Field Label 1' and has a checked checkbox. Fields 2 through 8 are empty and have unchecked checkboxes. Below the fields are 'Metadata' and 'Tags' (both multi-line text boxes). A note below the tags says '(Tags are comma separated)'. At the bottom is a 'Make Public' checkbox, which is currently unchecked.

Field	Label	Checkbox
Field 1	Field Label 1	<input checked="" type="checkbox"/>
Field 2		<input type="checkbox"/>
Field 3		<input type="checkbox"/>
Field 4		<input type="checkbox"/>
Field 5		<input type="checkbox"/>
Field 6		<input type="checkbox"/>
Field 7		<input type="checkbox"/>
Field 8		<input type="checkbox"/>

Metadata

Tags

(Tags are comma separated)

Make Public ☐

Figure 3 - Information about the new ThingSpeak channel.

4) Check the field boxes to be able to give the following names:

- **Field 1:** “Temperature”
- **Field 2:** “Humidity”
- **Field 3:** “Pressure”
- **Field 4:** “Wind Direction”
- **Field 5:** “Wind Speed”
- **Field 6:** “Wind Gust”
- **Field 7:** “Amount of Rain”
- **Field 8:** “Battery Voltage”

5) Check the “Make Public” button.

- 6) After creating the channel, open the tab “API Keys” and copy the Key in the “Write API Key”.

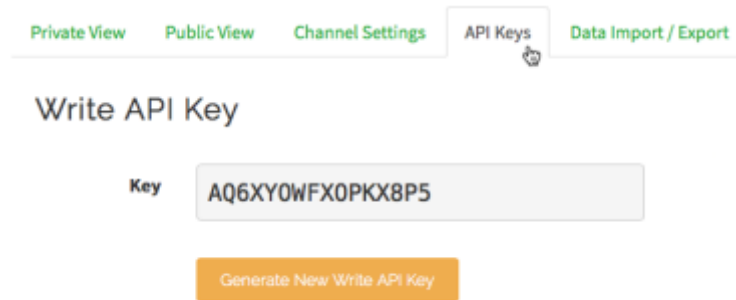


Figure 4 – ThingSpeak channel API Key.

- 7) Go to the Arduino IDE and in the “LoRaWeatherStation.ino” example code and in the line 23 change the ThingSpeak key channel to the new as shown in the following figure:

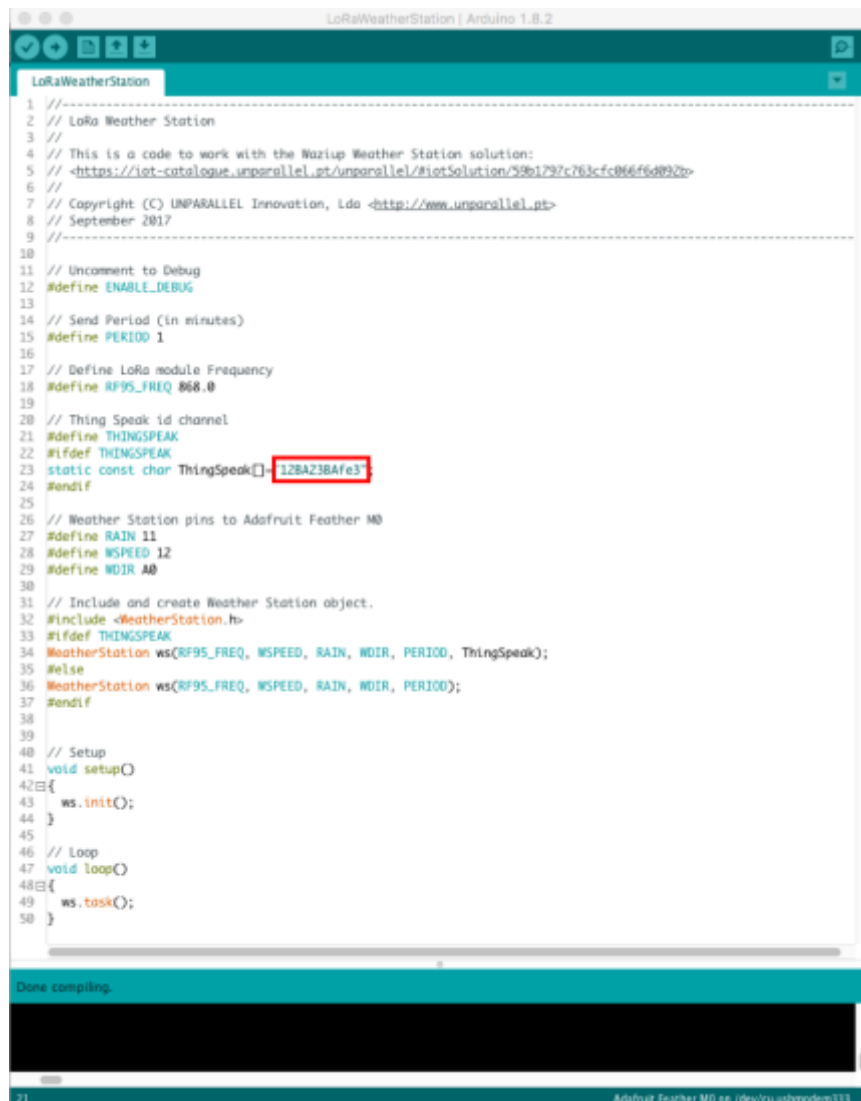


Figure 5 – Change the ThingSpeak channel key in the Arduino code.

- 8) The following examples shows the result, for a short period of time, from Weather Station in the ThingSpeak Cloud platform.



Figure 6 - Represented the ThingSpeak Cloud platform.