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 platform[1] with the following email and password:

   Email: noitedoinvestigador@unparallel.pt
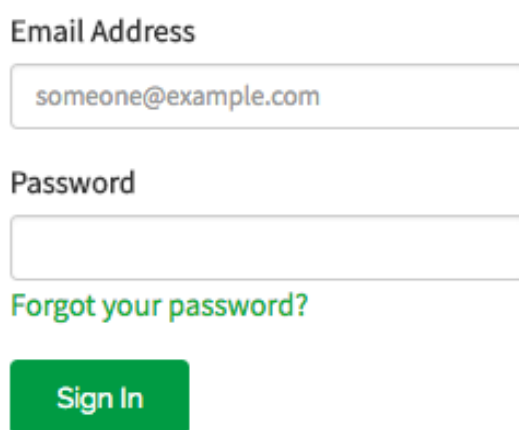   **Password**: NoiteInvestigador2017

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
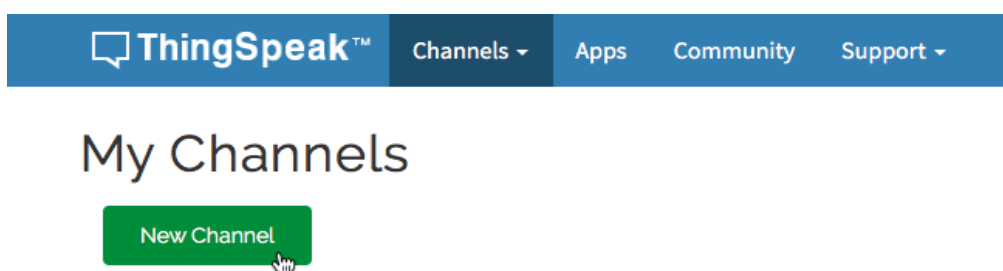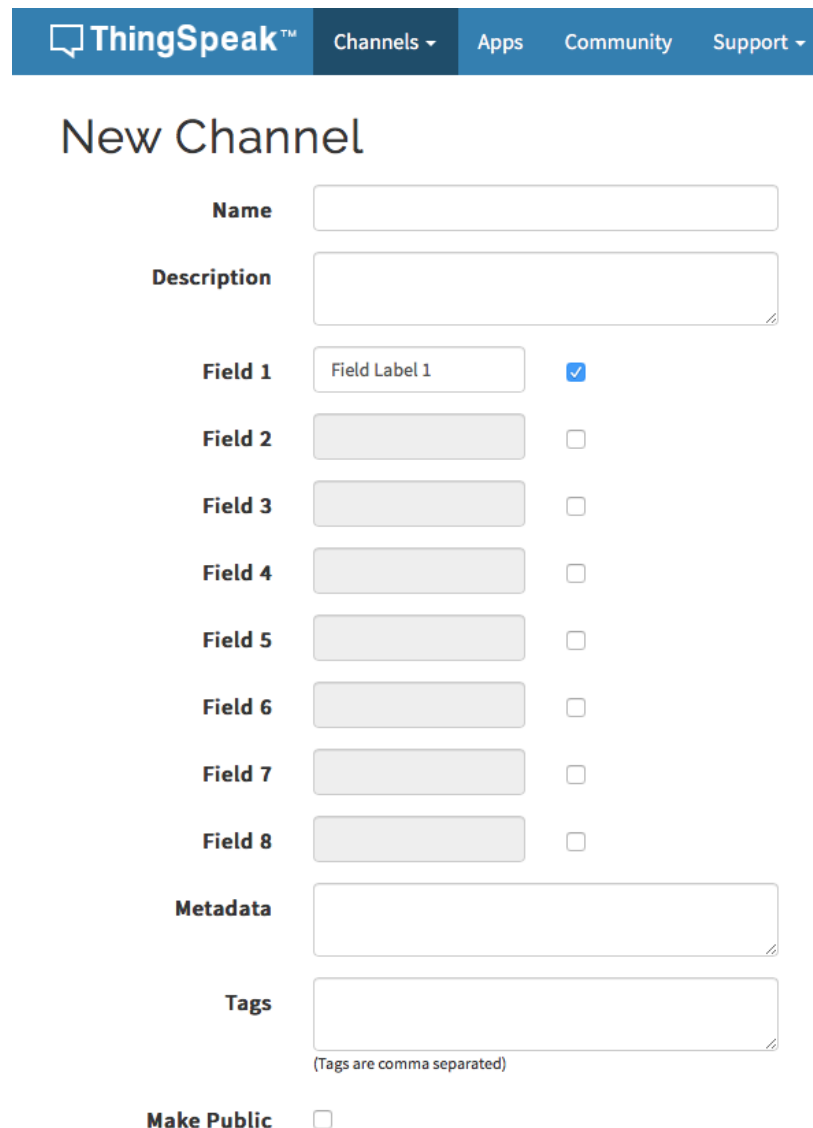

Figure 2 – Create a new channel in ThingSpeak.

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[1] https://thingspeak.com/

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

Figure 3 - Information about the new ThingSpeak channel.

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

- **Filed 1:** "Temperature"
- **Field 2:** "Humidity"
- **Field 3:** "Pressure"
- **Field 4:** "Wind Direction"
- **Field 5:** "Wind Speed"
- **Filed 6:** "Wind Gust"
- **Field 7:** "Amount of Rain"
- **Filed 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".
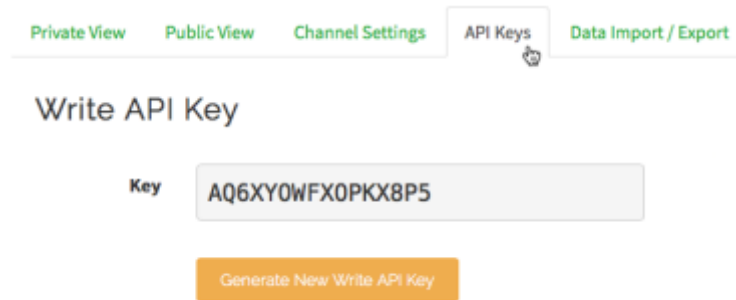

Figure 4 – ThingSpeak channel API Key.

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:
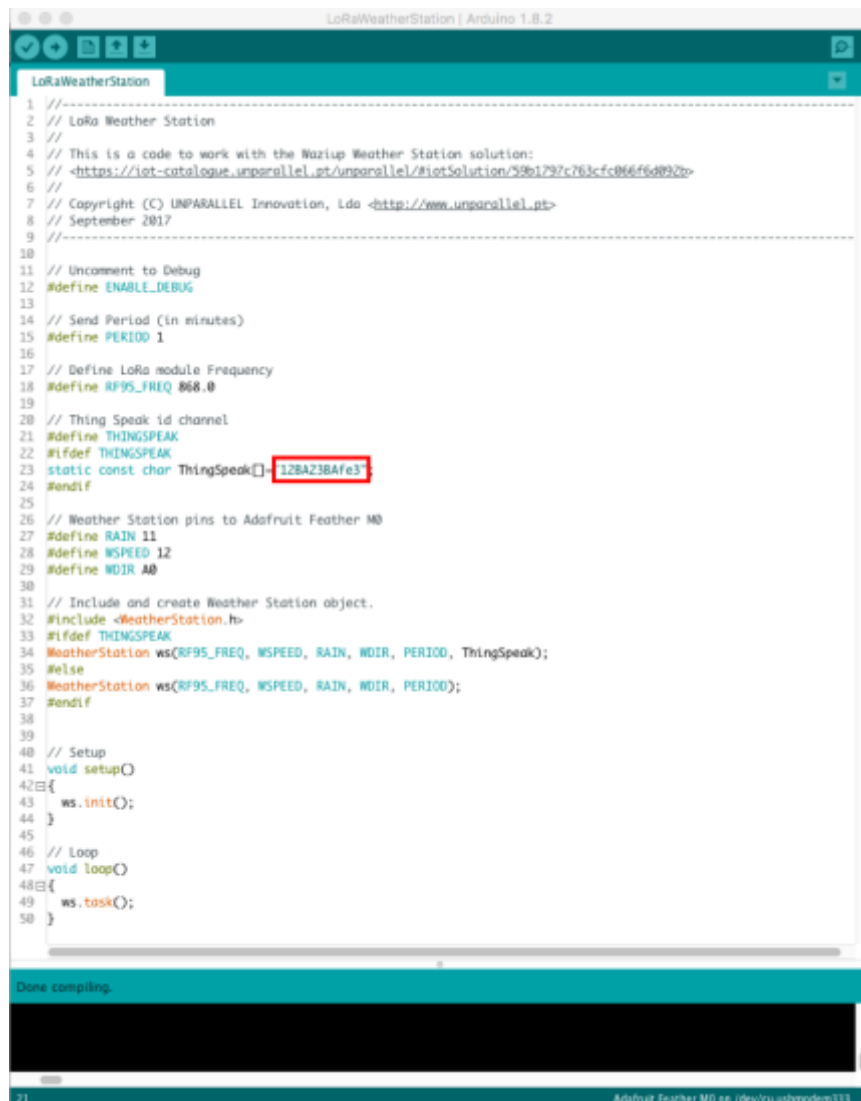

Figure 5 – Change the ThingSpeak channel key in the Arduino code.

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.