

Weather & Go

version 1.0.0

Weather & Go is a Python 3 program, which allows a user to check current weather conditions. The program utilises AerisWeather API to gather the weather information and it has a simple user interface allowing to enter a city name and an ISO country code.

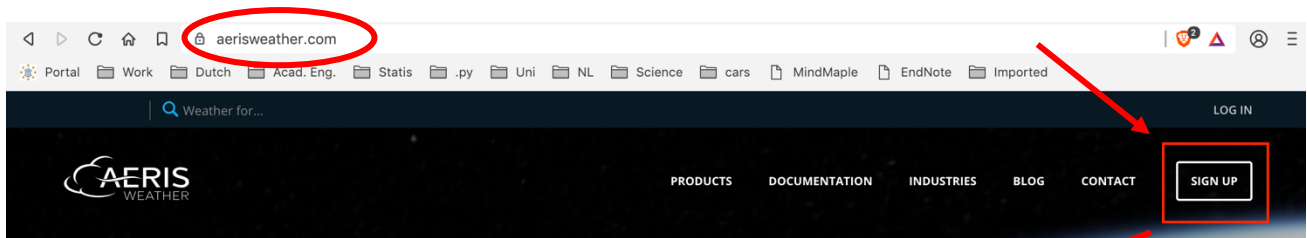
In the current version Weather & Go displays the information about temperature (in °C or °F), humidity (%) and sky (e.g. sunny) at a specified location. It also shows a feels like temperature (in °C or °F) and a wisdom thought to correspond to the weather conditions.

Weather & Go can present the weather information in Python and if necessary, send it in an SMS message. The program uses Twilio API and can send messages only to verified mobile phone numbers. Please note that this feature is currently under the development and will be adjusted and improved in future releases.

Getting Started

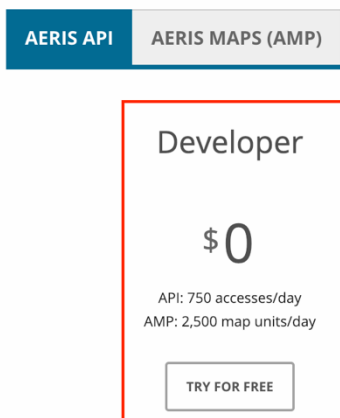
Prerequisites

1. In order to use Weather & Go you will need to register a free developer account with AerisWeather. To do so, you will need to visit <https://www.aerisweather.com/>, click “SIGN UP”, select “Developer” account, enter registration information (username, email and password) and click “SIGN UP FOR FREE”. Please refer to the screenshots below.



Product Guide

Select a product and plan below to begin customizing :



As soon as you have done that, you will see the screen below. Please take note of your **Access ID** (your `client_id`) and **Secret Key** (your `client_secret`). These are the key parameters for running the Weather & Go program.

You're now signed up for Aeris API and Maps!

We have set you up with a demo project so you can start using our APIs immediately. Just use the following access keys when making requests:

Access ID

XXXXXXXXXXXXXXXXXXXX = your `client_id`

Secret Key

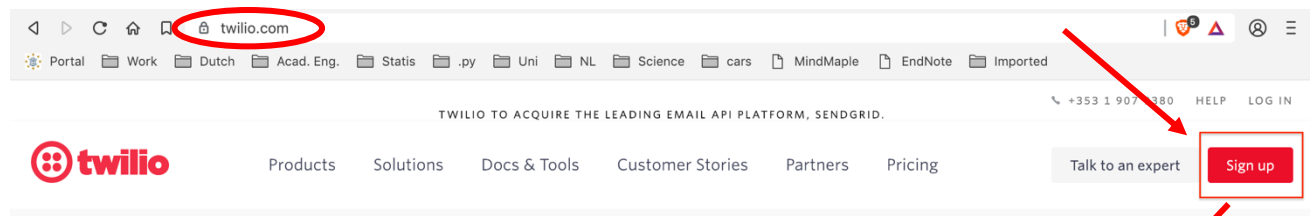
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX = your `client_secret`

GETTING STARTED

You can now [log in](#) to your account to create additional projects and register other applications to use your account. Also be sure to review our documentation for [Aeris Weather API](#) and [Aeris Maps Platform \(AMP\)](#) for more information on getting started.

| | |
|-------------------------|-----------------------------|
| SIGN IN | GET STARTED |
|-------------------------|-----------------------------|

2. To receive SMS messages you will need to register a Twilio Account. To do so, you will need to visit <https://www.twilio.com/>, click “*Sign up*”, enter registration information and click “*Get Started*”. Please refer to the screenshots below.



Get started with a free Twilio account.
No credit card required.

| | |
|-----------------------------|-----------------|
| First Name | Last Name |
| Email | |
| Choose a password | Password, again |
| Get Started | |

By clicking the button, you agree to our [legal policies](#).

Already have an account? [Login](#)

You will need to verify your mobile number.

Verify Your Identity

Verify Phone Number

NUMBER

+31

Your Phone Number

Why verify a phone number?

Verify

We will contact you at the number above with a verification code

☐ The phone number you provide will be used for authentication when you login to Twilio Console. A Twilio onboarding specialist may also use this number to reach out with free onboarding support. If you do not want to be contacted at this phone number, please check this box.

Verify Your Identity

Verify Phone Number

Please enter the verification code we sent to < >

XXXX

Submit

[Want to verify with a Call instead of SMS?](#)

Didn't receive a code?

Resend Code (43)

The next step is to “*Create a Project*”

Create a Project

Templates

Products

Flex New

Deploy an omnichannel contact center within minutes and customize every element of the experience, including the agent desktop, channels, interaction routing, and reporting using common web frameworks like React.js and REST APIs.

APPLICATION PLATFORM

07262 727 727

Jan 1, Monday 12:00 (GMT)

Anne Martin

Jan 1 New image posted

07700 900684

00:14

Create Flex Project →

for example, select “*SMS Chatbot*”

SMS Chatbot

Have a conversation with your customers over SMS or WhatsApp

VISUAL BUILDER →

If you followed all the steps, you should see a similar dashboard screen. Please refer to the screenshot below. The important information there is **ACCOUNT SID** and **AUTH TOKEN**. Please take note of your ACCOUNT SID and AUTH TOKEN, since you will need them during the installation process.

This screenshot shows the Twilio dashboard for a new SMS Chatbot project. The left sidebar contains navigation links: Dashboard, Billing, Usage, Settings, Upgrade, and a code editor icon. The main content area has a blue notification bar at the top stating 'We are updating our online terms of service. [Learn more](#)'. Below this is the title 'My New SMS Chatbot Project Dashboard'. The 'Project Info' section includes a description of the SMS Chatbot and a 'Get Started' button. To the right, a table displays project details: PROJECT NAME (My New SMS Chatbot Project), ACCOUNT SID (XXXXXXXXXXXXXXXXXXXX), AUTH TOKEN (hide XXXXXXXXXXXXXXXXXXXX), and user roles (Owner, 1 manage, 2FA Disabled). The ACCOUNT SID and AUTH TOKEN fields are highlighted with a red box.

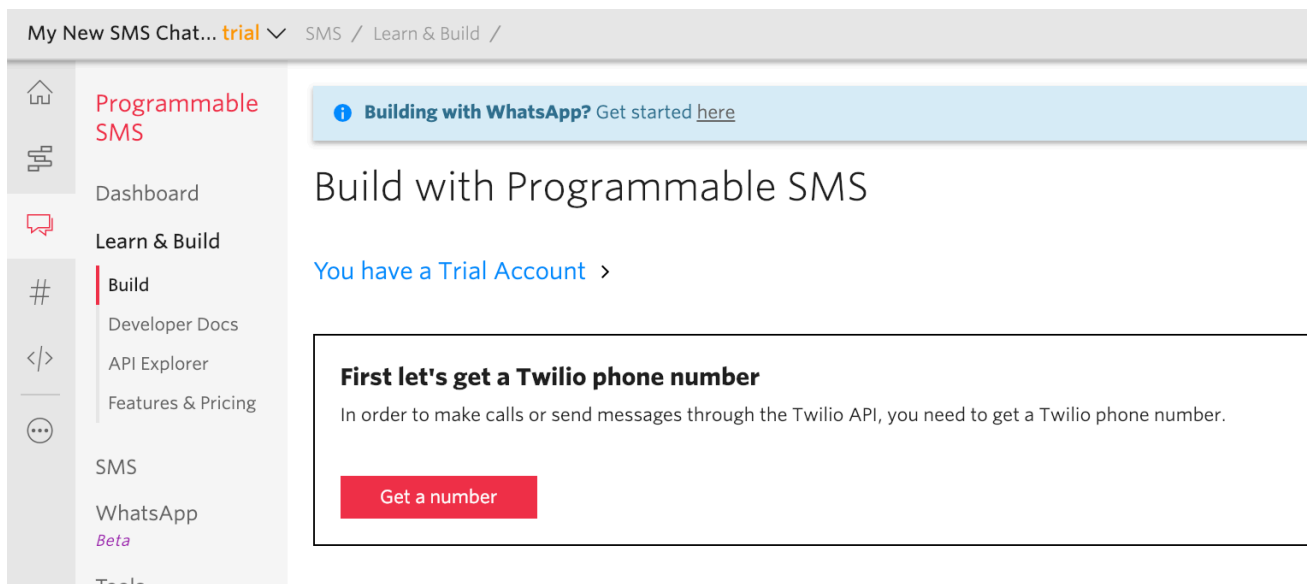
| PROJECT NAME | My New SMS Chatbot Project | edit |
|--------------|----------------------------|-----------------------------------|
| ACCOUNT SID | XXXXXXXXXXXXXXXXXXXX | |
| AUTH TOKEN | hide XXXXXXXXXXXXXXXXXXXX | |
| Owner | 1 manage | 2FA Disabled edit |

The last step here is to register a Twilio phone number. You will need it to receive text messages. To register a phone number please scroll the page down to “*Programmable SMS*” and click “*Get Started*”. Please see the screenshot below.

This screenshot shows the Twilio dashboard with the 'Programmable SMS' section highlighted by a red box. A red arrow points from the 'Programmable SMS' link in the left sidebar to the highlighted section. The 'Programmable SMS' section includes a description: 'Build intelligent SMS logic and apps in web applications over local, toll-free, and short-code numbers globally from one API'. It also features a 'Get Started' button and links to 'Programmable SMS' and 'Developer Docs'. The 'Studio' section above it lists various use cases like 'Build an IVR', 'Send Appointment Reminders', 'Connect with your customers using Chat Bots', and 'Effortlessly send SMS Surveys'.

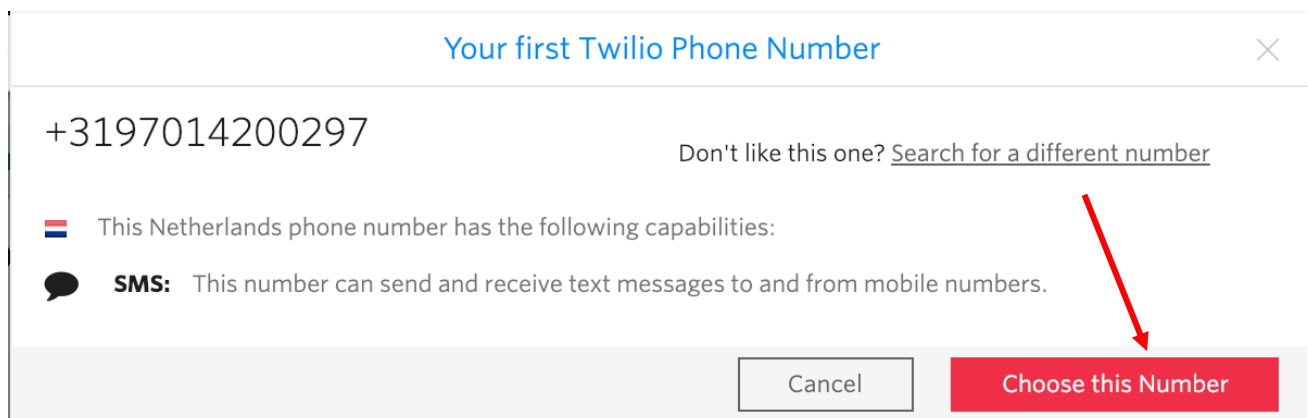
| PROJECT NAME | My New SMS Chatbot Project | edit |
|--------------|----------------------------|-----------------------------------|
| ACCOUNT SID | XXXXXXXXXXXXXXXXXXXX | |
| AUTH TOKEN | hide XXXXXXXXXXXXXXXXXXXX | |
| Owner | 1 manage | 2FA Disabled edit |

Click “*Get a number*”



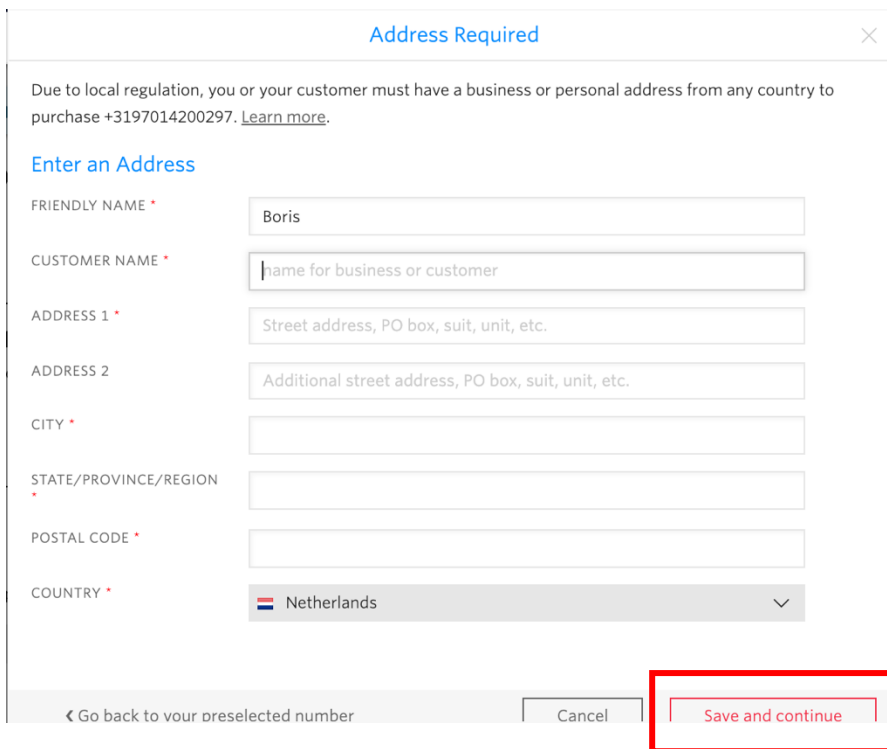
The screenshot shows the Twilio Programmable SMS dashboard. The left sidebar contains navigation links: Home, Dashboard, Learn & Build (with sub-links: Build, Developer Docs, API Explorer, Features & Pricing), SMS, WhatsApp (Beta), and Tools. The main content area has a header "Build with Programmable SMS" and a sub-header "You have a Trial Account >". A blue banner at the top says "Building with WhatsApp? Get started [here](#)". A box titled "First let's get a Twilio phone number" contains the text "In order to make calls or send messages through the Twilio API, you need to get a Twilio phone number." and a red button labeled "Get a number".

and select “*Choose this Number*”

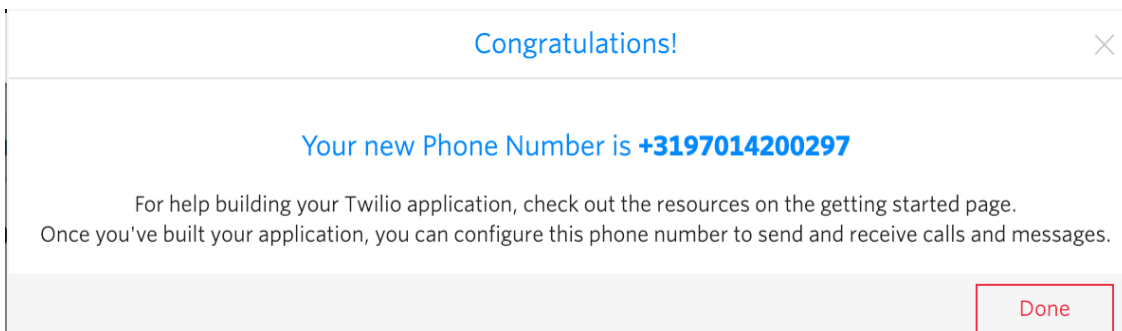


The screenshot shows a dialog titled "Your first Twilio Phone Number" with a close button (X) in the top right. The dialog displays the phone number "+3197014200297" and a link "Don't like this one? [Search for a different number](#)". Below the number, it says "This Netherlands phone number has the following capabilities:" followed by a speech bubble icon and the text "SMS: This number can send and receive text messages to and from mobile numbers." At the bottom, there are two buttons: "Cancel" and "Choose this Number". A red arrow points to the "Choose this Number" button.

Enter your name, full address and click “*Save and continue*”



On the next screen, you will see your new Twilio phone number. You will receive SMS messages from it. Please take note of this number, since you will need it during the installation process.



3. To run Weather & Go you will need Python v3.6 or higher installed in your OS. **Please note that the program will not work on Python 2.**

Installation

1. Install the Twilio Python helper library by entering "pip install twilio" in the terminal. For screenshots and more detailed instructions, please refer to <https://pypi.org/project/twilio/>.

2. Open Weather & Go.py file from Geneve group folder or download the script from the repository: [https://github.com/stepanov-a-o/basic-programming-project/blob/master/Weather%20&%20Go%20\(final\).py](https://github.com/stepanov-a-o/basic-programming-project/blob/master/Weather%20&%20Go%20(final).py)

3. In the script add the **client_id** (=Access ID) and **client_secret** (=Secret Key). Please use credentials obtained in step 1 (Prerequisites section).

```
client_id = "&client_id=....." #replace the dots with the client ID e.g. "&client_id=6pbp6xxxx0nByC6o"
client_secret = "&client_secret=....." #replace the dots with the client secret e.g. "&client_secret=NGU28dBl2Uxxxtl1Mvj"

# *** IMPORTANT ***
# the client_id=..... & client_secret=..... are identification parameters,
# which you will get after the registration on AerisWeather. Please
# refer to README file for a detailed installation instructions.
```

4. In the script add the **Twilio Account SID**, **Twilio Auth Token**, **to**="+31..." and **from**="+31..." phone numbers. Please use credentials obtained in step 2 (Prerequisites section).

```
# the following line needs your Twilio Account SID and Auth Token
# if you do not know where to find your Twilio Account SID and Auth Token please refer to README file
account_sid = "....."
auth_token = "....." # replace the dots with the Account SID and Auth Token
client = Client(account_sid, auth_token)

# change the "from_" number to your Twilio number and the "to" number
# to the phone number you signed up for Twilio (during the registration)
client.messages.create(to="+31.....",
    from_="+31.....",
    body = sms)
```

Please note that you need to add Twilio Account SID, Twilio Auth Token, **to**="+31..." and **from**="+31..." information in two places (lines 125-132 and 201-208).

Usage

Once you have completed all the steps from the Installation section, you can execute the Weather & Go program.

Note:

- Aeris API is free until 750 requests per day. For more information, please check AerisWeather website: <https://www.aerisweather.com/signup/pricing/>
- Twilio has a free trial account balance. Every text message will reduce your balance. For more information, please check Twilio website: <https://www.twilio.com/sms/pricing/nl>

Built With

- [urllib](#) - a module built into the Python standard library. We used it to send a get request to AerisWeather
- JSON (JavaScript Object Notation) - a build in library. We used it to gather the information through AerisWeather API
- random - a module from the standard Python library, to display random quotes/wisdom thoughts to a user
- [The Twilio Python Helper Library](#) – an external library. We used it to interact with the Twilio API from Python

Contribution

Feel free to contribute to Weather & Go program, pull requests and other improvements are welcome. If you have any ideas, just open an issue and tell us what you think, or send us an email to weather@go.com

Licensing

[The MIT License \(MIT\)](#)

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