

# COMPILER IN C

## TEAM GREMLINS

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# User Manual

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## Document Objective


The purpose of this document is to show a useful and understandable guide for any user (beginner or advanced) that allows you to download the C compiler, test it and run it correctly.

## Members

Member	Position
Barrientos Veana Luis Mauricio	Software Architect
González Pacheco Leonardo Alonso	Linker
Martínez Matías Joan Eduardo	Project Manager
Rosales Romero Ricardo	Tester

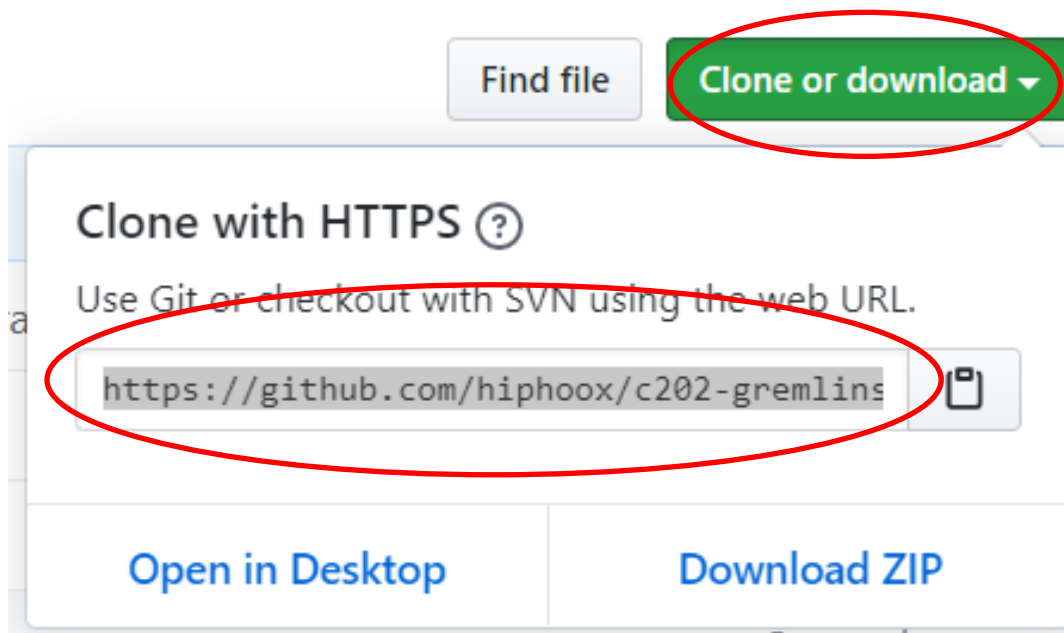
## User Manual

### Installation Prerequisites

1. You need to have a current version of elixir (1.10) on your computer. If you don't have it you can download it here [Elixir](#)
2. The complete project is in a GitHub repository, so to download it you need to have **an account**. <https://github.com/>
3. Have Git installed  
You can download it at the following link  <https://git-scm.com/downloads>
4. Have a Windows operating system.

### Installation

The complete compiler program can be found on page <https://github.com/hiphoox/c202-gremlins> once inside the page it is necessary to click the **clone or download button** and copy the URL that appears within the following box.



The next step is to clone the repository in some folder on our computer, in this case we did it on the desktop, and for this the following command is typed in the terminal:

**\$ git clone <https://github.com/hiphoox/c202-gremlins.git>**

```
52559@LAPTOP-E3P50NKC MINGW64 ~/Desktop
$ git clone https://github.com/hiphoox/c202-gremlins.git
Cloning into 'c202-gremlins'...
remote: Enumerating objects: 85, done.
remote: Counting objects: 100% (85/85), done.
remote: Compressing objects: 100% (61/61), done.
remote: Total 559 (delta 47), reused 56 (delta 22), pack-reused 474
Receiving objects: 100% (559/559), 4.94 MiB | 1.53 MiB/s, done.
Resolving deltas: 100% (290/290), done.
```

The next step is to change to the c202-gremlins folder by typing:

**\$ cd c202-gremlins.**

The folder where the execution and subsequent tests can be done is **gremlins-assembler**. With **\$ls** we can look for it.

We are in it typing:

**\$ cd gremlins-assembler**

```

52559@LAPTOP-E3P50NKC MINGW64 ~/Desktop
$ cd c202-gremlins

52559@LAPTOP-E3P50NKC MINGW64 ~/Desktop/c202-gremlins (master)
$ ls
'(RequerimentsPart3)'  gremlins-documentation/
gremlins-assembler/    README.md

52559@LAPTOP-E3P50NKC MINGW64 ~/Desktop/c202-gremlins (master)
$ cd gremlins-assembler

```

It should be noted that in the c202-gremlins folder there is also the project documentation in gremlins-documentation, within this you have the requirements, architecture, presentations, work plan, etc.

## Settings

Since we are inside the folder to generate the executable, we use the mix tool. Typing the following:

**\$ mix escript.build**

```

52559@LAPTOP-E3P50NKC MINGW64 ~/Desktop/c202-gremlins/gremlins-assembler (master)
$ mix escript.build
Compiling 1 file (-ex)
Generated escript compilador with MIX_ENV=dev

```

## Implementation

An .out file should be generated as follows:

**./compilador -o [input parameters]**

```

→ gremlins-assembler git:(master) x mix escript.build
Generated escript compilador with MIX_ENV=dev
→ gremlins-assembler git:(master) x pwd
/Users/ricardorosales/Documents/c202-gremlins/gremlins-assembler

```

```

→ gremlins-assembler git:(master) x pwd
/Users/ricardorosales/Documents/c202-gremlins/gremlins-assembler
→ gremlins-assembler git:(master) x ./compilador "/Users/ricardorosales/Do
cuments/codigo_en_C/test1.c"
/Users/ricardorosales/Documents/codigo_en_C/test1.c
Valid path/Users/ricardorosales/Documents/codigo_en_C/test1.c
Ejecutable generado, para ver la salida del programa: ./test1; echo $?
Finalizó la compilación de forma exitosa.

```

## Tests

To run all the tests of the project you only need to type the following command:

**\$ mix test**

```
52559@LAPTOP-E3P50NKC MINGW64 ~/Desktop/c202-gremlins/gremlins-assembler (master)
$ mix test
.....La palabra RETURN es inválida.
....
Finished in 0.06 seconds
24 tests, 0 failures
Randomized with seed 503000
```

Once this is done, a zero error message will be sent if all tests ran properly.