

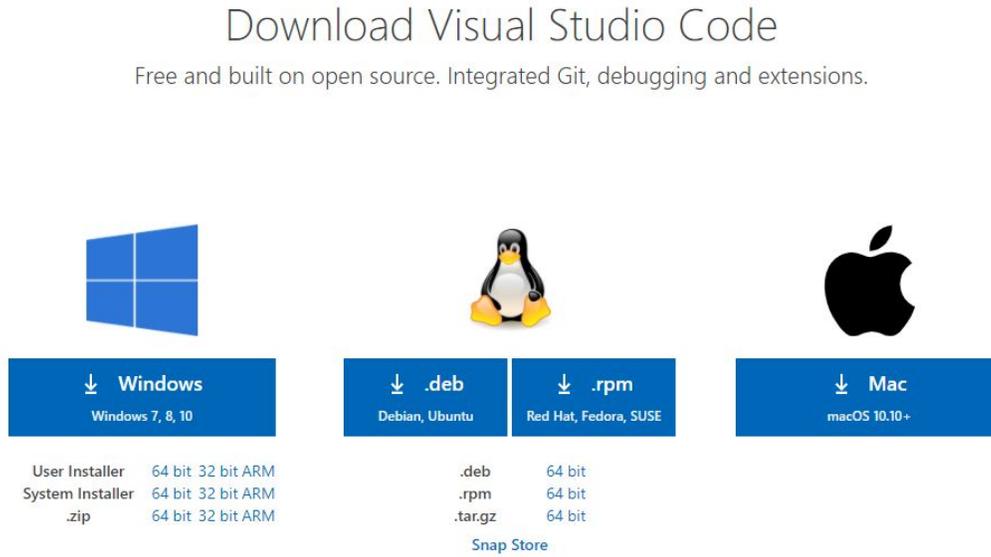
## Rust + Cargo Install Guide:

Step 1) Ensure that you have VSCode installed on your machine, this is Rust's preferred text editor. Ensure that you have the "Code ." shortcut added to PATH, this is required later.

**CODE . PATH TUTORIAL** <https://rb.gy/5xnfbt>

### Download Visual Studio Code

Free and built on open source. Integrated Git, debugging and extensions.



Platform	OS	Installer Type	Architecture
Windows	Windows 7, 8, 10	User Installer	64 bit 32 bit ARM
		System Installer	64 bit 32 bit ARM
		.zip	64 bit 32 bit ARM
Linux	Debian, Ubuntu	.deb	64 bit
		.rpm	64 bit
Linux	Red Hat, Fedora, SUSE	.rpm	64 bit
		.tar.gz	64 bit
Mac	macOS 10.10+	Snap Store	

<https://code.visualstudio.com/download>

Step 2) Gp to <https://www.rust-lang.org/tools/install> It will auto detect what operating system you're on and give you an installer.

# Install Rust

## Using rustup (Recommended)

It looks like you're running Windows. To start using Rust, download the installer, then run the program and follow the onscreen instructions. You may need to install the [Visual Studio C++ Build tools](#) when prompted to do so. If you are not on Windows see "[Other Installation Methods](#)".

DOWNLOAD RUSTUP-INIT.EXE (32-BIT)

DOWNLOAD RUSTUP-INIT.EXE (64-BIT)

## Windows Subsystem for Linux

If you're a Windows Subsystem for Linux user run the following in your terminal, then follow the on-screen instructions to install Rust.

```
curl --proto '=https' --tlsv1.2 -sSf https://sh.rustup.rs | sh
```

Step 3) run the file downloaded and **press 1**.

```
C:\Users\cocon\Downloads\rustup-init.exe
The Cargo home directory located at:
  C:\Users\cocon\.cargo
This can be modified with the CARGO_HOME environment variable.
The cargo, rustc, rustup and other commands will be added to
Cargo's bin directory, located at:
  C:\Users\cocon\.cargo\bin
This path will then be added to your PATH environment variable by
modifying the HKEY_CURRENT_USER/Environment/PATH registry key.
You can uninstall at any time with rustup self uninstall and
these changes will be reverted.
Current installation options:
  default host triple: x86_64-pc-windows-msvc
  default toolchain: stable (default)
  profile: default
  modify PATH variable: yes
1) Proceed with installation (default)
2) Customize installation
3) Cancel installation
>
```

Once done type these commands to ensure things are installed correctly.

**rustc --version**

**cargo --version**

**rustup --version**

```
C:\Users\cocon>rustc --version
rustc 1.46.0 (04488afe3 2020-08-24)

C:\Users\cocon>cargo --version
cargo 1.46.0 (149022b1d 2020-07-17)

C:\Users\cocon>rustup --version
rustup 1.22.1 (b01adbbc3 2020-07-08)

C:\Users\cocon>
```

Step 4) Once things are set up, you're ready to create your first program. Start by creating a new file in your main hard drive, I called mine CSC301, then create another folder in that folder called Rust.

From the command line, cd into that folder and type “cargo new [file\_name] in our case, filename will be hello\_world.

```
C:\Users\cocon\Documents\CSC301\Rust>cargo new helloworld
Created binary (application) `helloworld` package
C:\Users\cocon\Documents\CSC301\Rust>
```

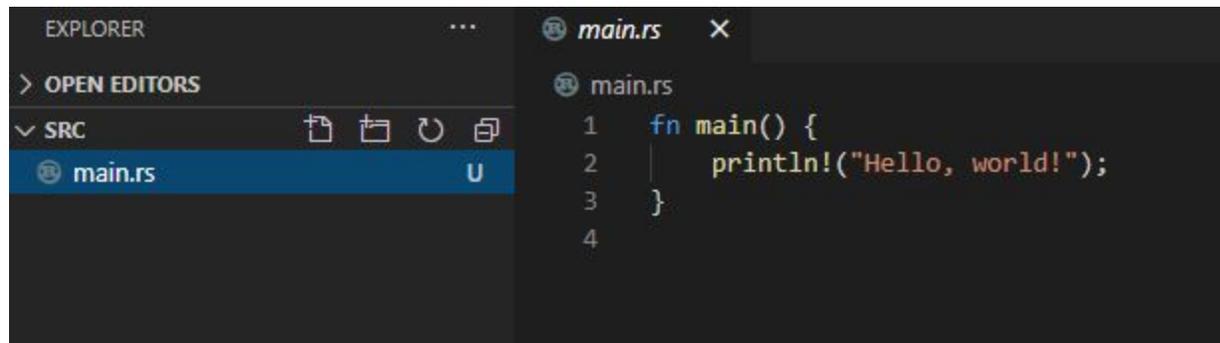
Once it creates the binaries and the filesystem, type “cd hello\_world”, then “cd src”

```
C:\Users\cocon\Documents\CSC301\Rust>cd helloworld
C:\Users\cocon\Documents\CSC301\Rust\helloworld>cd src
C:\Users\cocon\Documents\CSC301\Rust\helloworld\src>
```

Then once inside of the src folder type “code .” this brings the src file into VSCode.

```
C:\Users\cocon\Documents\CSC301\Rust\helloworld\src>code .
C:\Users\cocon\Documents\CSC301\Rust\helloworld\src>
```

You’ll be able to open the premade main.rs file which by default prints hello world!



```
EXPLORER
... main.rs X
> OPEN EDITORS
SRC
main.rs U
main.rs
1 fn main() {
2     println!(\"Hello, world!\");
3 }
4
```

Step 5) To compile and run your code, go to the command line and make sure that it’s opened to the src file still. Type “cargo build” and “cargo run”

```
PS C:\Users\cocon\Documents\CSC301\Rust\helloworld\src> cargo build
Compiling helloworld v0.1.0 (C:\Users\cocon\Documents\CSC301\Rust\helloworld)
Finished dev [unoptimized + debuginfo] target(s) in 0.91s

PS C:\Users\cocon\Documents\CSC301\Rust\helloworld\src> cargo run
Finished dev [unoptimized + debuginfo] target(s) in 0.01s
Running `C:\Users\cocon\Documents\CSC301\Rust\helloworld\target\debug\helloworld.exe`
Hello, world!
```