

*Hello! Today we'll be talking about how to script on Roblox. This essay will teach you the basics to become a scripter, and you can learn more about this either on YouTube, or <https://developer.roblox.com/en-us/>. The first thing you need to know about scripting on Roblox is you need Studio. You can download studio here: <https://www.roblox.com/create>. Now that you have your proper materials, let's get started!*

*So, now let's get to the actual scripting. You can read up on how to do specifics on the developer hub, but first, you may want to watch some YouTube videos. Some people that I would recommend are AlvinBlox and TheDevKing. They have easy to follow tutorials, and they thoroughly explain each subject matter. The first thing you'll learn about would be properties. Properties define what an object looks like. Properties control material, color, transparency, etc.*

*Property material code: `workspace.Part.Material = Enum.Material.Pebble` ←or whatever material*

*Property transparency code: `workspace.Part.Transparency = 0.5` ←or whatever your transparency is*

*Property color code: `part.BrickColor = BrickColor.new(color)` ←note to color: make sure when you use color, that you define it, with `local part = workspace.FindFirstChild("part")`, letting the script know what you are talking about.*

*The next thing you'll probably learn is debugging. Debugging is important in scripting, because if you have a very long script, and there is an error, you do not want to go through the whole thing, especially if it's something like a module script, where it can be very long. In addition, debugging is so easy, and can save you a whole lot of time. All you have to do to put a debug line in is: `print("your text here")`. That's it. This simple line of code can save you so much time and headache.*

*Debugger code: `print("your text here")`*

*The topic you'll learn after both things is functions and wait times. Functions really help your coding, because you can run a function repeatedly with a chunk, instead of copy and pasting a line of code repeatedly. Now, for wait times. People who do not really know what they are doing will use `wait()` when waiting for another task, however, this causes lag in game performance, and will just mess everything up. However, you can use `task.wait()`, since this will perform the same task, however, it moves much faster. With that being said, be careful, because when you use local scripts, you're going to use something different. We'll talk about this in a different section.*

*Functions and wait times example:*

*function `changeColor()`*

*local `part = workspace.FindFirstChild("part")`*

*`part.BrickColor = BrickColor.new(Black)`*

*`task.wait(5)`*

*`part.BrickColor = BrickColor.new(Red)`*

*end*

*`changeColor()`*

*Now, with local scripts, you'll probably want to use RunService. This is a bit different, but local scripts get a different job done, so we'll have to be a little different. With RunService, at the top of your script, you'll put: local RunService = game.GetService("RunService"). When using wait times, you will use RunService.Heartbeat.Wait. That takes care of local scripts.*

*What you'll learn now is Loops. In your game, you'll have functions running, and you may want to do this repeatedly. Not to worry! Most common Loops are the "while true do" loops. These loops have an object as true, and as long as the object is true, then the function and loop will run. They are not that hard to use. What you can use as an anchor for these loops is ExperienceIsRunning = true. This will be the base for your loops. After this line, make put "while true do," and then your function.*

*Example of the loop:*

*ExperienceIsRunning = true*

*while true do*

*function changeTransparency()*

*workspace.Part.Transparency = 0.5*

*task.wait(9)*

*workspace.Part.Transparency = 6*

*end*

*changeTransparency()*

*end*

*All right! That's the basics of Roblox Lua. Hopefully this tutorial was a big help, and that you learned something!*