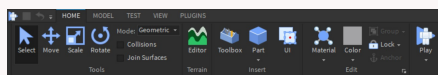


### Home Tab



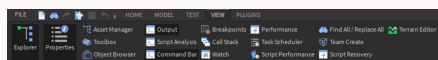
The Home tab is where we make and edit Parts.

Expanding the **Part** button shows other Part types.

To edit the Part, use these buttons: **Select**, **Move**, **Scale** and **Rotate**.

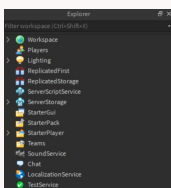
The **Play** button can be used to run the game.

### View Tab



The View tab contains all the windows in Roblox Studio. We will mostly be using **Explorer**, **Properties**, **Output** and **Toolbox**.

### Explorer Window



The Explorer Window shows the location of your objects in the game. Each Service has its own use. For example, objects located in **Workspace** will be rendered in the 3D space and **Players** contains all the player clients that join the game.

### Explorer

**game** Parent of everything in Explorer

**Workspace** Used to hold objects that will be rendered in the 3D space

**Players** List of all Player Clients that join the game

### Explorer (cont)

**Replicate-dFirst** Replicates all objects under this tab to all the Clients (and not the server)

**Replicate-dStorage** Storage available to Clients and Server

**ServerScriptService** Storage for ModuleScripts and ServerScripts

**Server-Storage** Storage available only to the Server

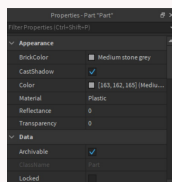
**StarterGUI** Used to hold GUI objects that will be copied to all clients

**Starter-rPack** Used to hold items that are then copied into the Player's backpack

**StarterPlayerScripts** Used to store LocalScripts for the Player

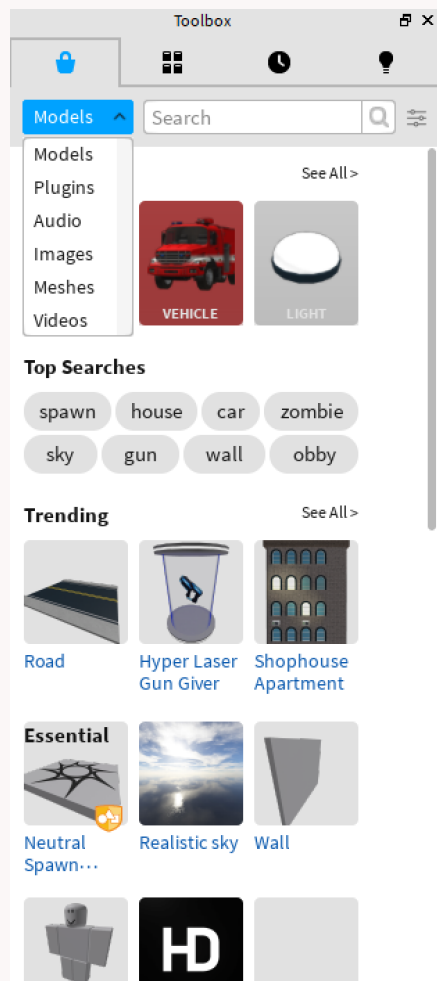
**StarterCharacterScripts** Used to store LocalScripts for the Player's character

### Properties Window



The Properties Window shows the properties/attributes available to the object. Select an object to show its properties.

### Toolbox



There are a lot of resources available in the Toolbox like Models, Images, Audio, etc.

### Objects

**Part** A physical brick in the world

**Model** A container for Parts

**Script** A container for *Lua* source code that is run on the Server

**LocalScript** A container for *Lua* source code that is run on a Client



By [immortaltfmious](https://cheatography.com/148206/cs/32309/)

Not published yet.

Last updated 30th June, 2022.

Page 1 of 3.

Sponsored by [Readable.com](https://readable.com)

Measure your website readability!

<https://readable.com>

### Variables

```
myNumber = 17
myName = " Cat hy"
print( "My name is ", myName,
      "and I'm ", myNumber)
```

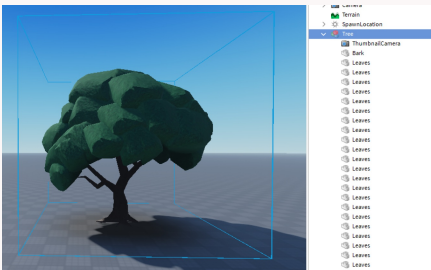
Variables can be used to store anything from numbers, strings and other objects. You do not need to specify the type of variable (i.e. int, String, bool).

### Referencing Objects

```
-- create a variable for a Part
located in the Workspace
part = game.Workspace.Part
*--[
create a variable for a Script
in StarterPlayerScripts
      (Which is
located in StarterPlayer)
]*
script = game.StarterPlayer
      .StarterPlayerScripts
```

To reference an object, use a period to go through the hierarchy (Parent to Child). Referencing is similar to finding a pathway to the object.

### Models



Models are Parts that are grouped together. It makes it easier to move objects that consists of a lot of objects like a Tree (which can have Trunk Parts, Leaf Parts, etc).

### Part Properties

```
-- declare a variable for the
Part
part = game.Workspace.Part
-- changes the Part's name (Name
shown in Workspace)
part.Name = "New Part Name"
-- changes the Part's BrickColor
to Colour Name
part.BrickColor = BrickColor.new(
  "Colour Name")
-- change the position using the
x, y, and z coordinates
part.Position = Vector3.new(x,
  y, z)
-- change the size using x, y,
and z coordinates
part.Size = Vector3.new(x, y,
  z)
-- anchors the Part so it cannot
be moved around
part.Anchored = true
```

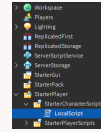
Here are some common properties used for Parts

### Creating an Object

```
newObject = Instance.new("Part")
--create a new object, Part,
called newObject
newObject.Name = " myObject"
--assigns a name to the new
object
newObject.Parent = game.Workspace
--assigns a Parent to the object
secondObject = newObject:Clone()
--clones the original object
newObject:Destroy()
--destroys the object
```

Here's some general code on how to create a new object.

### Parent vs Child



A child is an object that is under a Parent (another object). In this image, the LocalScript is a Child of StarterCharacterScripts. Easiest way to tell if something has a child is to see if you can expand it (arrow to the left side). Anything that comes up after you expand something is the child of that object.

### Operators

==	Equals to
~=	Not Equal
>	Greater than
<	Less than
>=	Greater than or equal to
<=	Less than or equal to

+	Add
-	Subtract
*	Multiplication
/	Division
^	Exponentiation
%	Modulus

### Function

<code>wait(10)</code>	Waits for 10 seconds
<code>print(" Hello World!")</code>	Prints the message in the Output window



By [immortaltfmous](https://cheatography.com/148206/cs/32309/)

Not published yet.  
Last updated 30th June, 2022.  
Page 2 of 3.

Sponsored by [Readable.com](https://readable.com)  
Measure your website readability!  
<https://readable.com>

### Custom Functions

```
-- this function adds 2 numbers
function sum(num1, num2)
    print(num1 + num2)
end
sum(1, 2)
-- assigns a variable to the
result of the function
function calculateSquare(n)
    return n * n
end
result = calculateSquare(3)
```

### Conditional Statements

```
if
workspace:FindFirstChild("Tree")
then
    print( " There is a
tree here." )
end
if coins < 5 then
    print( "You need more
money." )
else
    print( "You have
enough money! " )
end
if player.Name == " Jake" then
    print( "You are an
awesome guy, Jake")
elseif player.Name == " Sal ly"
then
    print( "You are a
sweeth eart, Sally")
else
    print( "You are a
pretty cool person ")
end
```

If statements will run their code if the value between **if/then** is true (or not nil). They can be one **else** block, or any number of **elseif** blocks.

### Loops

```
i = 0
while i < 10 do
    i += 1
end
--while loop, adds 1 to i until
i is greater than 10
while true do
    print( " while loop")
    wait(1)
end
--while loop, infinite loop
since it is always true
for i = 1, 10 do
    print(i)
end
--for loop, prints i until i
reaches 10
for i = 0, 10, 2 do
    print(i)
end
--for loop, prints i until i
reaches 10 (i adds 2 each time)
```

### Player vs Character vs Humanoid

**Player** The Player's Client, stores information relating to the player's account (UserID, SpawnLocation, etc)

**Character** The Player's physical character in the 3D world. It is a model and contains all the Player's body parts (HumanoidRootPart, Head, etc)

### Player vs Character vs Humanoid (cont)

**Humanoid** A child of the Player's character. Includes properties such as Health, JumpHeight, WalkSpeed, etc.



By [immortaltfmous](https://immortaltfmous)

[cheatography.com/immortaltfmous/](https://cheatography.com/immortaltfmous/)

Not published yet.

Last updated 30th June, 2022.

Page 3 of 3.

Sponsored by [Readable.com](https://readable.com)

Measure your website readability!

<https://readable.com>