The Official ROBLOX Guide

Roblox Game Development in 24 Hours

Pearson

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Roblox Game Development

The Official ROBLOX Guide

in 24 Hours

Pearson

Roblox Game Development in 24 Hours: The Official Guide

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Foreword

Imagine a virtual universe built by a global community of artists, coders, storytellers, and everything in between. In this dream, people from all corners of the world come together to create and share millions of experiences with their friends and learn from one another. It would be a universe driven by imagination, where anything could be made and experienced, regardless of device, location, or time period. What if I told you this digital utopia has been a reality for over a decade?

When Erik Cassel and I co-founded Roblox in 2004, our vision was to create an immersive, 3D, multiplayer, physically simulated space where anybody could connect and have fun doing things together. In the early days of Roblox, we were fascinated by what people were making. We saw experiences where people wanted to manage their own restaurant, survive a natural disaster, or imagine what it's like to be a bird. Seventeen years later, as I gaze into the future, it's obvious this platform can become so much more.

Roblox is ushering in a new category of human co-experience, blurring the lines between gaming, social networking, toys, and media. Our team has found that the millions of daily Roblox users aren't just logging on to play games but are coming together to build communities, stories, and experiences with friends and strangers alike.

As we continue our mission to build a human co-experience platform that enables shared experiences among billions of users, there has never been a better time to join a global community of creative individuals who are contributing such amazing works to our platform. Developing 3D experiences is not only fun, but it also provides the skills and knowledge to launch a career in computer science, design, art, and so much more. Many top developers on our platform have used the money they earned from their creations on Roblox to pay for their college tuition, start their own game development studios, or put a down payment on a house for their parents.

I believe that ultimately Roblox will lead us to the creation of the Metaverse, a full-fledged digital reality that will complement our physical one. We can start to imagine a day where people aren't just coming to Roblox to play and socialize but also to hold business meetings or go to school. As the possibilities of the Metaverse increase by the day, so too does the need for innovative and creative developers who can shape the experiences we've been dreaming about in science fiction for years.

I personally invite you to join the world of Roblox not just as a player but also as a creator. Learning to develop both games and immersive 3D experiences can help connect millions of people worldwide through the power of play and create a community not defined by borders, languages, or geography. If you're at all interested in coding, game design, or the immersive 3D world of Roblox, consider peering through these pages and embracing your wildest, most creative ideas. The Metaverse depends on creators just like you.

Your imagination awaits,
David "Builderman" Baszucki
Founder + Chief Executive Officer
Roblox Corporation

About the Author

Genevieve Johnson is the senior instructional designer for Roblox, the world's largest user-generated social platform for play. In her role, she oversees creation of educational content and advises educators worldwide on how to use Roblox in STEAM-based learning programs. Her work empowers students to pursue careers as entrepreneurs, engineers, and designers. Before working at Roblox, Johnson was educational content manager for iD Tech, a nationwide tech education program that reaches more than 50,000 students ages 6 to 18 each year. While at iD Tech, she helped launch a successful all-girls STEAM program, and her team developed educational content for more than 60 technology-related courses with instruction on a variety of subjects, from coding to robotics to game design.

About the Contributors

Ashan Sarwar is a Roblox developer who has been using Roblox Studio since 2013. He is the owner of LastShot, a Roblox shooting game on Roblox.

Raymond Zeng is a Roblox developer who loves programming and teaching all levels of programmers. He has a YouTube channel under the name of MacAndSwiss where he teaches Lua, talks about Roblox news, and showcases his programming projects.

Theo Docking has been working as a gameplay programmer for four years. He likes working on exciting projects, pushing Roblox to the limit, and meeting amazing people along the way. He loves playing with Roblox's physics engine and writing back-end code for NPCs, cars, and more. When he's not writing code, he's drawing up game design plans or playing Ultimate Driving to get some fresh air.

Joshua Wood discovered Roblox in 2013 and started making his own games a year later. He is the developer of Game Dev Life, which has had more than a million play sessions. He's also the owner of DoubleJGames.

Swathi Sutrave is a self-professed tech geek. She has been a subject matter expert for several different programming languages, including Lua, for corporations, start-ups, and universities.

Henry Chang is a computer graphics artist who practices in multiple mediums, including 3D, 2D, graphics, and animation. He is a self-starter and has been involved in interactive media opportunities. For more information, visit https://www.henrytcgweb.com/.

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HOUR 2
Using Studio

What You'll Learn in This Hour:

- How to install and launch Roblox Studio
- How to use Studio templates
- How to navigate game editor
- How to create a part
- How to translate, scale, and orient parts
- How to save and publish your project
- Playtesting

Now that we've explored the culture and features that make Roblox special, you can start to unleash your creativity with Roblox's free game engine, Roblox Studio. Roblox Studio is a playground for developers to create, share, and play their games on the Roblox website. What's great about this platform is that you can easily build everything from volcanic islands to urban cityscapes and then drop a character into that world to immediately start playing. Imagine a huge playground filled with all the tools you need to build imaginary worlds—that's Roblox Studio.

In this hour, you'll learn how to install Studio, and then you'll learn how to use Roblox Studio with the help of templates. You'll also learn how to arrange your workspace to hold objects in the 3D world, the difference between saving and publishing your project, and finally how to test your game before publishing it to the public.

Installing Roblox Studio

We've explained how Roblox Studio is a free and immersive platform for game developers to build different terrains, cities, buildings, race games, and much more. You don't need years of coding experience or a degree to make fun games; all you need is your imagination and hands-on learning in the Roblox Studio. Roblox Studio is extremely intuitive to use. Because Roblox is cross-platform, developers can install Studio on both Windows and Mac systems.

Use the following steps to install Studio:

1. Go to https://www.roblox.com/create.
2. Click Start Creating and then click the Download Studio button in the pop-up window.
3. Navigate to the folder where you have downloaded Studio and double-click the file to install it.

NOTE

System Requirements

For Roblox Studio to run efficiently, there are some OS/hardware specifications:

- Roblox Studio cannot run on Linux, Chromebooks, or mobile devices such as smartphones.
- A Windows computer with at least Windows 7 installed, or a MacBook with version macOS10.10.
- A minimum of 1 GB of system memory.
- Internet access to download Studio and updates. It also lets you save projects (publish) to your Roblox account.

For an enhanced Studio experience, you should also have these things (not mandatory):

- A mouse with a scroll wheel, preferably a three-button mouse.
- A video card that's dedicated and not an integrated card.

Troubleshooting the Installation

If you've followed the necessary steps to install Studio but you're experiencing installation conflicts, there are a few things you can do to troubleshoot the errors:

- If you've added new hardware or drivers recently, remove and replace the hardware to determine if it's causing the problem.
- Run diagnostics software and check information on troubleshooting the operating system.
- Restart the computer.
- Uninstall and delete all the Roblox files and reinstall the latest Studio again, if required.

If you are still finding errors, you can also reference the Roblox Support forums online for additional tips.

Opening Roblox Studio

Once you are done installing the Roblox Studio, you need to open it:

1. Double-click the desktop icon if you are on Windows or click the Dock icon if you are on a Mac to open a login window (Figure 2.1).
2. Enter your Roblox username and password.
3. Click the Log In button.

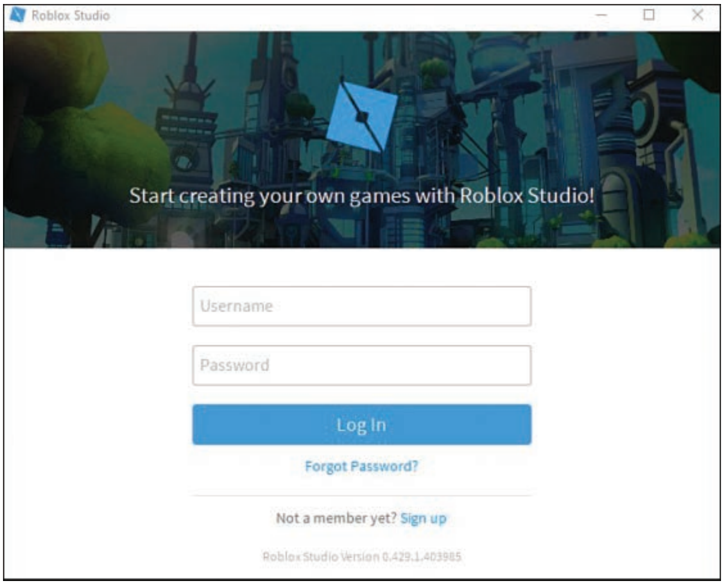

Roblox Studio
Start creating your own games with Roblox Studio!
Username
Password
Log In
Forgot Password?
Not a member yet? Sign up
Roblox Studio Version 0.429.1.403985

FIGURE 2.1
Roblox Studio login window.

Once you are logged in, you see a page with different templates and a menu sidebar with New, My Games, Recent, and Archive (Figure 2.2).

The following sections provide a quick introduction to these templates and the rest of Studio; then you can begin experimenting with the utilities of Studio.

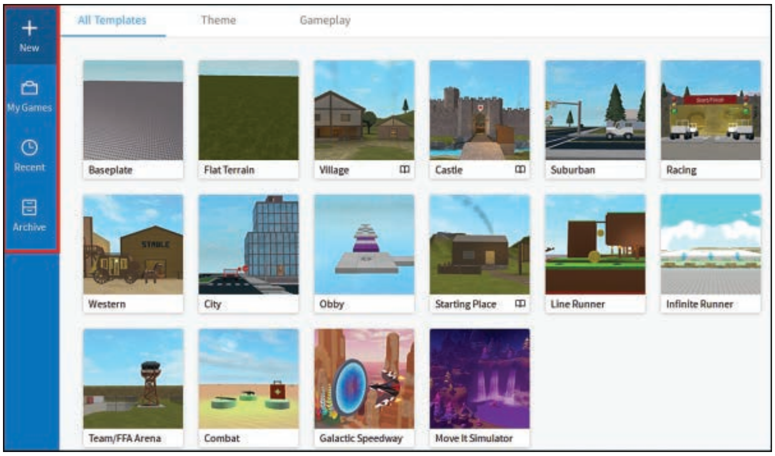


FIGURE 2.2
Roblox Studio home screen.

Using Studio Templates

When you first open Roblox Studio, under New, you see three tabs: All Templates, Theme, and Gameplay. Templates are prebuilt projects, and you can use them as a guide to build your own game world.

All Templates

The All Templates tab (Figure 2.3) is a combination of the Theme and Gameplay tabs. You can use these templates as a start for your games. For example, if you're building a medieval game, the Castle theme is equipped with feudal details, or if you want to build an interactive obby, you can build off the Obby gameplay template. Two simple templates are a good place to start:

- **Baseplate:** This is a popular choice to start with. The baseplate itself is easy to delete, leaving a blank canvas to work with.
- **Flat Terrain:** Has a flat plane of grass terrain instead of a baseplate. You can modify or clear the terrain using the terrain editor.

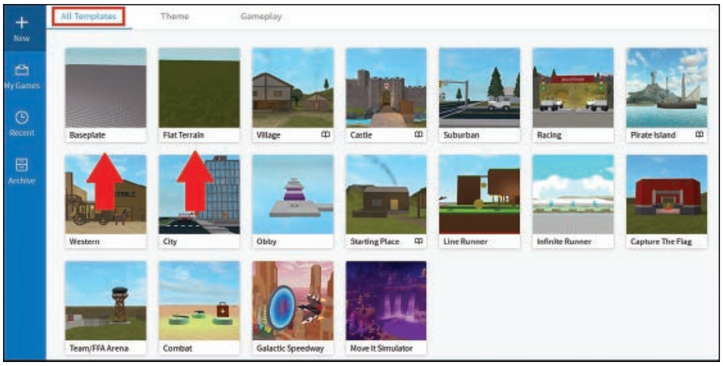


FIGURE 2.3
Roblox Studio home screen lists various templates available, such as simple templates Baseplate and Flat Terrain.

Themes

Themes are a combination of gameplays and more, and together they make a new world. It sets a mood for your game—for example, a space combat game will have asteroids and other galactic components. Roblox provides some prebuilt themes that are ready to use and modify however you would like. As you explore the game world, descriptions point out its use case or features, including tips on how the effects were created in case you want to re-create them yourself.

An example of a prebuilt theme is Village (Figure 2.4). You can explore the houses in the village and move along the pathway through the town, which leads you to a river, a bridge, and finally the dock, across which you can see small islands.

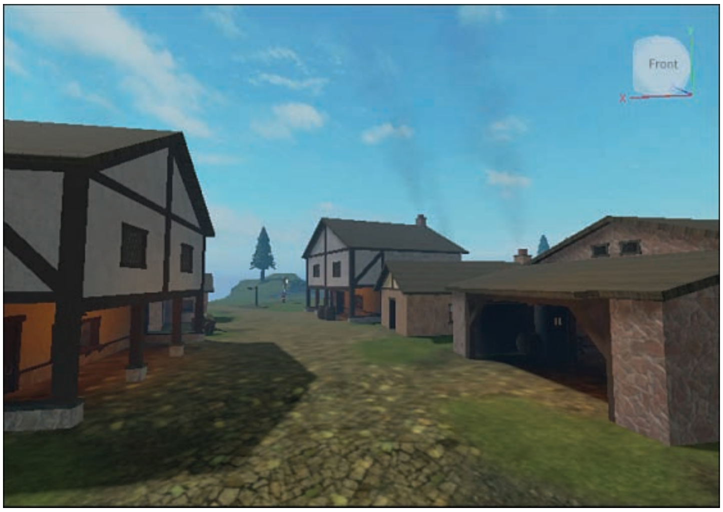


FIGURE 2.4
Example of a prebuilt *Village Theme* available in Studio.

Gameplay

Some templates include interactive gameplay. For example, this can include Team Deathmatch, Control Points, Capture the Flag (Figure 2.5), and more. A great thing about these templates is that developers can take them apart and extract any specific facet that they want—for example, using in-game radar or team spawn points. These templates help with components such as what a player can do in a game, what the goals are, and how a game can be modified.

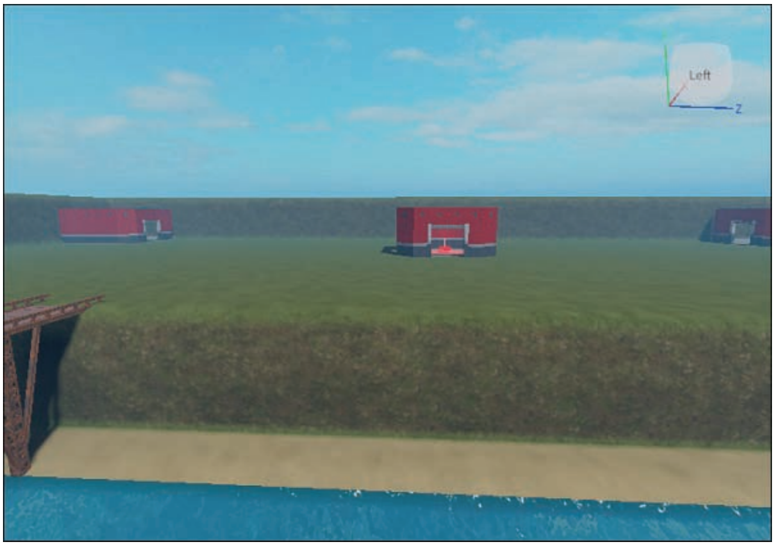


FIGURE 2.5
Example of a prebuilt *Capture the Flag* gameplay template.

Working with the Game Editor

Now that we've familiarized ourselves with Studio's homepage, let's click on the Baseplate template to get started. This opens the game editor (Figure 2.6).

The game editor is, as the name suggests, a place where you can create, modify, or test your game. At the top of the game editor, you see different tabs on the menu bar (Figure 2.7).

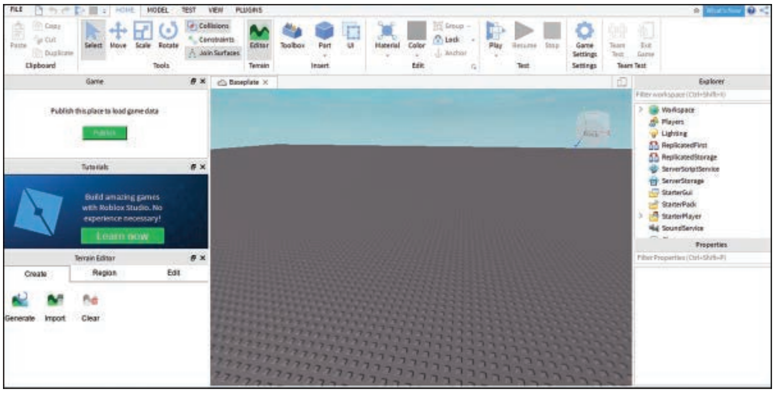


FIGURE 2.6
The game editor enables you to create, modify, or test your game.

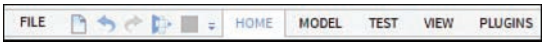


FIGURE 2.7
Roblox Studio menu bar.

- **Home tab:** A concise tab of all the features that are frequently used. These features are on the Home tab for easy access.
- **Model tab:** Has more building tools apart from move, scale, and rotate. It's also where you can create spawn locations and special effects such as fire and smoke.
- **Test tab:** Helps for testing your game. There are two options underneath: Run and Play. Run will run a simulation of what will happen to the bricks and surrounding elements, and Play will let you play your game.
- **View tab:** Lets you toggle the different windows available in the Roblox Studio. If you need to use a window that is closed, you can find them under the View tab.
  - The main windows are Explorer and Properties, which are discussed detail in later in this section.
  - The Actions section has several display features. You can take screenshots or record videos here and also toggle between full screen and windowed views.
- **Plugins tab:** An add-on to Studio. These are generally not included by default. Plugins add new custom behavior and features. You can either install plugins made by the Roblox community or create your own plugins.

Below the menu bar is a ribbon bar (Figure 2.8). The tool options change as you move between menu bar tabs.

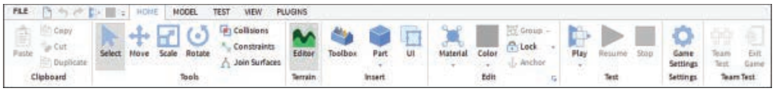


FIGURE 2.8
Roblox Studio ribbon bar.

In the following sections, we explain some of the editor's basic features and most frequently used features and discuss how to prepare your project for publishing on Roblox.

Arranging the Game Editor Workspace

Since this is the first time you are opening the game editor, extra windows that you don't require right now will automatically open on the left side. To organize the workspace in an optimal way, close the extra windows so you have more space to create.

By default, the Explorer and the Properties windows will be open (Figure 2.9), aligned one beneath the other on the right side.

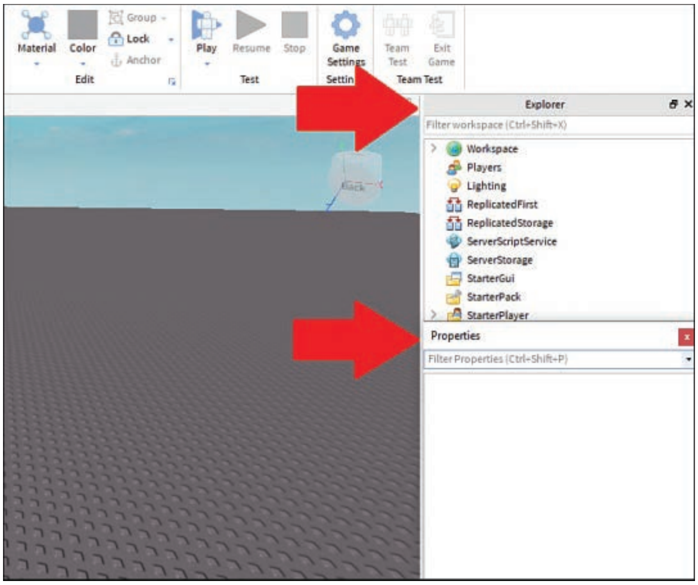


FIGURE 2.9
Workspace arrangement with the Explorer and Properties windows one below the other.

NOTE

Some Features of the Game Editor Workspace

The next time you relaunch Roblox Studio, your workspace arrangement remains intact. It is a one-time fix, unless you undo your arrangement.

When the Property window undocks, it gets difficult to dock it back below the Explorer window. It either docks itself aside or over the Explorer window. To fix this, undock both the windows and close them. Go to the View tab, open the Explorer window, dock it on the right-hand side, and then close it. Do the same with the Properties window and close it. After all this, reopen the Explorer and then the Properties window. This will align them one above the other.

Working with the Explorer Window

The Explorer window is the hierarchical representation of all the objects used in your game. It is the most crucial window because it lists all the organizing, viewing, and testing features of a Roblox game.

It uses the concept of parenting to organize all the objects. The object Game is hidden at the top of the hierarchy. For example, in Figure 2.10, you can see Workspace parent has the following children nested underneath: Camera, Terrain, and Baseplate.

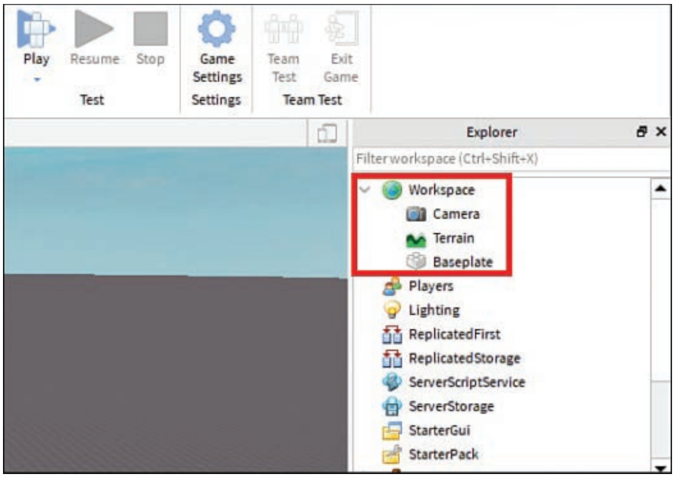


FIGURE 2.10
Objects nested under Workspace in the Explorer window.

If you want to create more child objects, you can hover over Workspace and click the plus symbol to the right (Figure 2.11). This will list all the objects that you can create. You can also drag and drop it into the desired parent object.

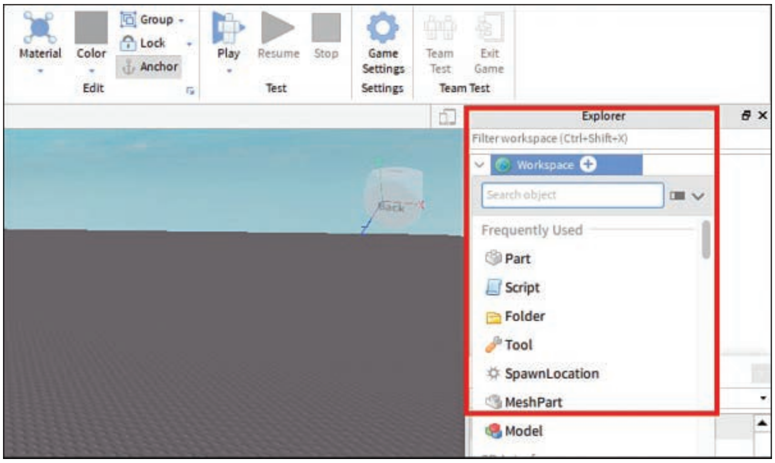


FIGURE 2.11
Add more children to your Workspace.

One of the most important children you will work with is a part, which is the foundational building block of Roblox. These physical 3D objects are also known as bricks, and when they are in the Workspace, they can interact with each other.

Creating a Part

To create a part, from the Home tab, navigate to the Insert menu in the ribbon bar and click Part (Figure 2.12).

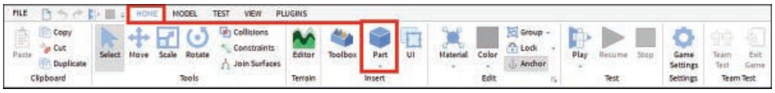
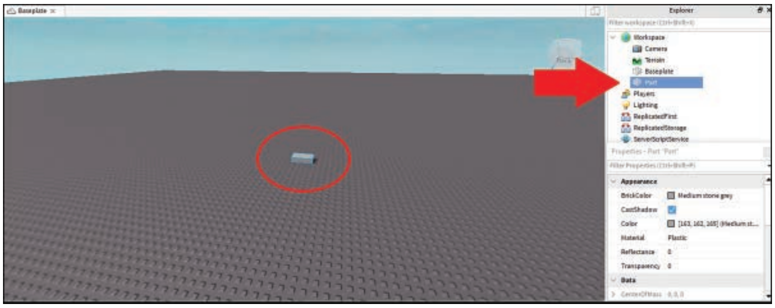


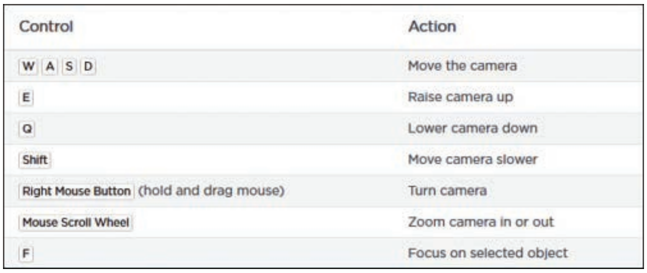
FIGURE 2.12
Create a part.

A part will appear at the exact center of your camera view (Figure 2.13). Use the **camera controls** shown in Figure 2.14 to move your camera, rotate the view, and zoom in and out.



BrickColor	▨ Medium stone grey
CastShadow	✓
Color	▨ [163, 162, 165] (Medium st...
Material	Plastic
Reflectance	0
Transparency	0
CenterOfMass	0, 0, 0

FIGURE 2.13
Part appears in your baseplate and in your Explorer.



Control	Action
W A S D	Move the camera
E	Raise camera up
Q	Lower camera down
Shift	Move camera slower
Right Mouse Button (hold and drag mouse)	Turn camera
Mouse Scroll Wheel	Zoom camera in or out
F	Focus on selected object

FIGURE 2.14
Camera controls.

To give your new part a name, do the following:

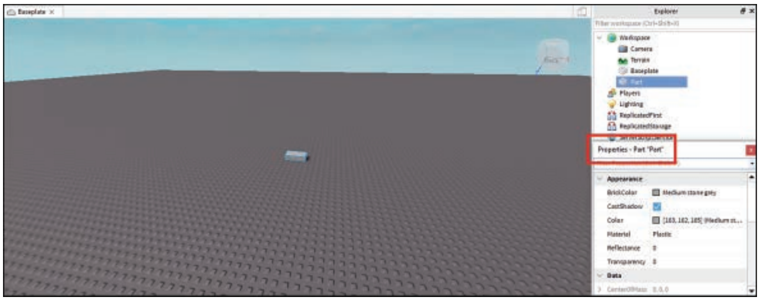
1. Double-click the part in your Explorer window.
2. Rename the part. Roblox convention is for parts to be named in PascalCase, which means the first letter is capitalized—for example, EndZone or RedBrick.

Note that your name can contain spaces, but we won't use spaces at this point in case we want to be able to access the part via code later.

You can use the Explorer to select and work with parts even if you can't see them in the game editor window.

Working with the Properties Window

When you add a part to your Workspace, you'll notice the Properties window (Figure 2.15) fills with information.



BrickColor	▨ Medium stone grey
CastShadow	✓
Color	▨ [163, 162, 165] (Medium st...
Material	Plastic
Reflectance	0
Transparency	0
CenterOfMass	0, 0, 0

FIGURE 2.15
The Properties window lists all the details about the newly added part.

Like any object, a part has properties such as size and color, and the Properties window shows all these details about how an object looks and behaves. In the next chapter, we'll go into further detail about properties of a part and how you can manipulate them.

Translating, Scaling, and Orienting Objects

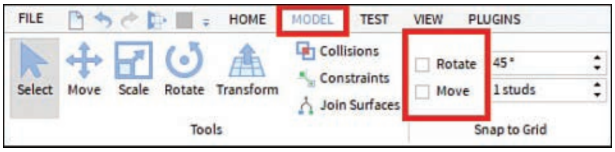
You've learned how to create a part; now you can make it move! In Roblox Studio, it is possible to move (translate) and rotate (orient) objects in the scene. There are multiple ways to get the same results, but in this section, we will solely use the Roblox Studio default tools and keyboard shortcuts.

There are two settings you can use to get greater control when moving parts: snapping and collisions.

- **Snapping** is the amount a part will move, scale, or rotate at a time. Snapping is useful when creating items that need to be exactly aligned, like how walls of buildings need to be at 90-degree angles.
- **Collisions** happen when two objects (or rigid bodies) intersect or get within a certain range of each other.

Because these two settings are most used when playing with two or more parts, turn them off for now while you freely move a single part around. Later, you'll turn them back on when we discuss how they work.

- **To turn OFF snap:** In the Model tab, uncheck the box next to Rotate or Move (Figure 2.16).



☐ Rotate 45°
☐ Move 1 studs

FIGURE 2.16
Turn off snap.

▶ **To turn OFF collisions:** In the Model tab, collisions are on if the button is highlighted gray. Click the Collisions button to toggle it off (Figure 2.17).

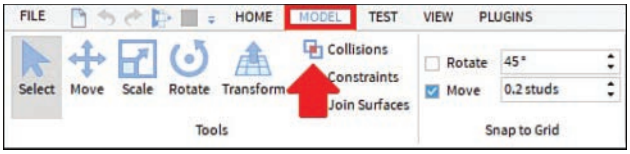


FIGURE 2.17
Turn off collisions.

Translating

Now you can freely start translating, or moving, objects. Go to the Model or Home tab and click the Move icon (Figure 2.18).

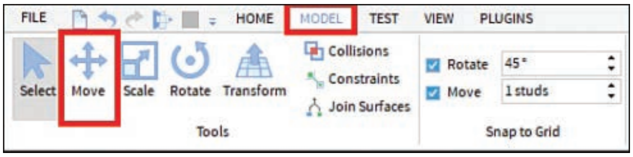


FIGURE 2.18
Move tool.

Now, a gizmo should appear on the selected objects. When you click, hold, and drag one of the arrows, the object moves along that axis (Figure 2.19).

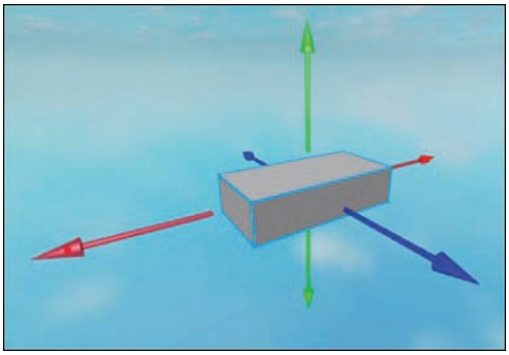


FIGURE 2.19
Moving the gizmo.

Scaling

To **scale** objects, go to the Model or Home tab and click the Scale icon (Figure 2.20).

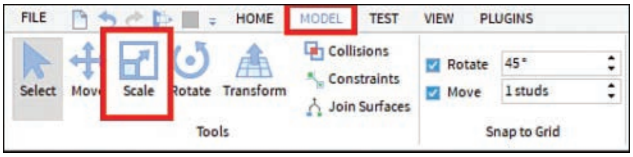


FIGURE 2.20
Scale tool.

The gizmo should appear again, this time with orbs on selected objects. When you click, hold, and drag one of the orbs, the object scales along that axis (Figure 2.21).

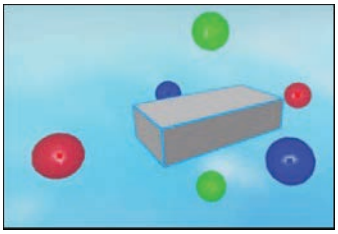


FIGURE 2.21
Scaling a gizmo.

If you want to scale on two sides simultaneously, hold Ctrl (Windows) or Command (Mac) while clicking, holding, and dragging one of the orbs.

If you want to scale while keeping the current proportions, you can do so by holding Shift while scaling.

Rotating

To rotate objects, go to the Model or Home tab, and click the Rotate icon (Figure 2.22).

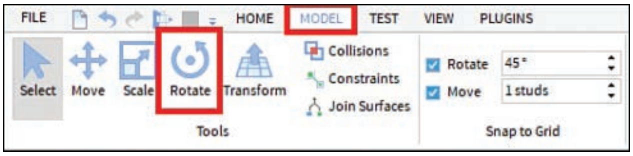


FIGURE 2.22
Rotate tool.

Another gizmo should appear, now with orbs and circular, connecting lines on selected objects (Figure 2.23). When you click, hold, and drag one of the orbs, the object will rotate along that axis.

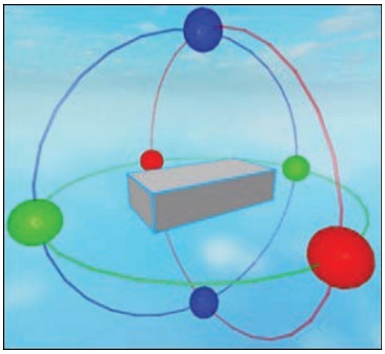
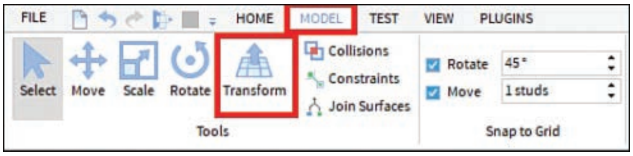


FIGURE 2.23
Rotating a gizmo.

Transforming

The transform tool (Figure 2.24) is particularly important as an all-in-one building tool. It enables multiple moves, scales, and rotations within one continuous operation. Think of it as a bundle of move, scale, and rotate. Basically, it can transform your part in any way possible. It also can lock an axis and snap to the grid.



Rotate 45°
Move 1 studs

FIGURE 2.24
Transform tool.

With your part selected, click on the transform tool and markers for manipulation appear around your part (Figure 2.25).

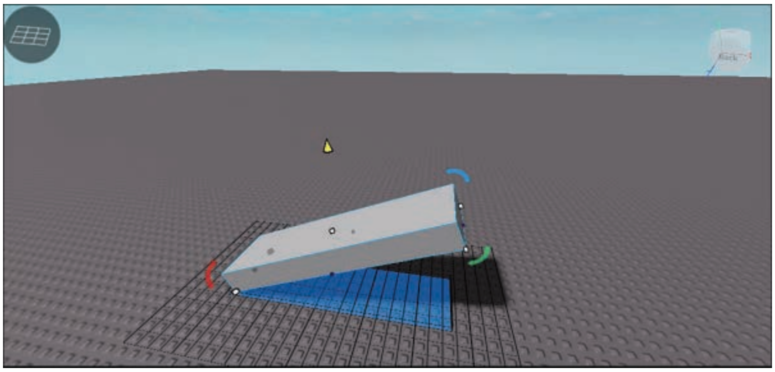


FIGURE 2.25
Using the Transform tool.

- The yellow cone is used to move the part on different planes on the Y axis. We can drag the part on its own plane once the plane is set.
- The red, green, and blue arcs are used to rotate the part by 360 degrees on the X, Y, and Z axes.
- The white boxes are used to scale the side of the part to which they are attached. The scaling happens in the measurement of studs, which is the measurement of each single square that forms the baseplate.

Snapping

Now that we understand the basics of moving a single part, let's revisit snapping and collisions. As a reminder, snapping is the amount a part will move, scale, or rotate at a time, and it allows you to align an object perfectly. There are two types of snapping: Rotation or Move.

- **Rotation** snapping enables you to turn an object by the given number of degrees. In this case, all objects will rotate 45 degrees each step.
- **Move** snapping counts for both moving and scaling. In this case, any object moves for one stud each step. Objects scale one stud each step.

Keep in mind that when you scale from the center of an object, it will scale one stud on both sides. It will then equal two studs total.

To turn snap back on, you will check the box next to Rotate or Move in the Model tab. Then, in the Rotate or Move fields, you can adjust your setting by the number of studs you want to move (Figure 2.26).

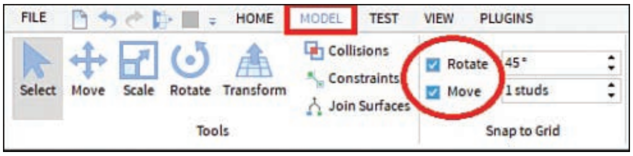


FIGURE 2.26
Snapping options.

Collisions

You can turn collisions back on and notice how they affect movement. In Roblox Studio, the collisions feature lets you control whether parts can move through each other. When collisions are on, you can't move a part into any place where it overlaps another part.

To turn collisions back on, click the Collisions button in the Model tab. This toggles it on and highlights it gray (Figure 2.27).

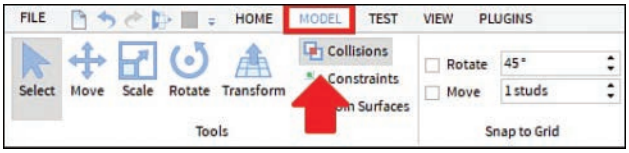


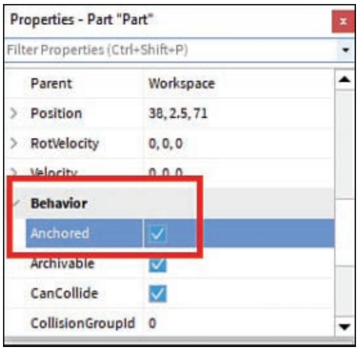
FIGURE 2.27
Collisions on.

Now as you move parts, you may notice a white outline whenever a part touches another part. This indicates that a collision is happening. We'll talk more about collisions in later hours.

Anchoring

We've talked a lot about making parts move in this chapter, but what if you don't want a part to move? If you want a part to be immobile, you need to anchor it. When you anchor a part, it remains static even when you're playing the game and other players and objects run into it. To anchor a part, do the following:

1. Go to the Properties window.
2. Scroll down to Behavior.
3. Check Anchored (Figure 2.28).


Properties - Part "Part"

Filter Properties (Ctrl+Shift+P)

Parent	Workspace
Position	38, 2.5, 71
RotVelocity	0, 0, 0
Velocity	0, 0, 0
Behavior	
Anchored	✓
Archivable	✓
CanCollide	✓
CollisionGroupId	0

FIGURE 2.28
Anchoring a part.

You can also easily Anchor and Unanchor parts with the Anchor button located in the bottom of Model tab or Home tab (Figure 2.29).

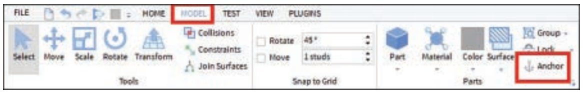


FIGURE 2.29
Anchor button.

▼ TRY IT YOURSELF

Anchoring Parts

To practice anchoring parts, do the following:

1. Create a part.
2. Move it left.
3. Rotate it 90 degrees with Snap to Grid.
4. Check the Properties window to see if it's anchored.

Saving and Publishing Your Project

Now that you are creating in the game editor, you will want to save your progress on projects from time to time because you don't want to lose any of the work you've accomplished. When you're ready for people to enjoy your creation, you may also want to publish it.

Saving Your Project

Roblox doesn't autosave your projects for you, so you need to save them. There are two places where you can save projects:

- **On your local desktop:** On the game editor menu bar, click File at the top-left corner, and then click Save to File. This retains the template name and saves the project as an .rbxl file. Instead, if you choose the Save to File As option in the same drop-down menu, you can rename the file (Figure 2.30).
- **On the Roblox server:** You can also save your project on the Roblox server by using the Save to Roblox As option in the same drop-down menu. This saves your work to a secure place in the Roblox Server but does not make it accessible to the public.

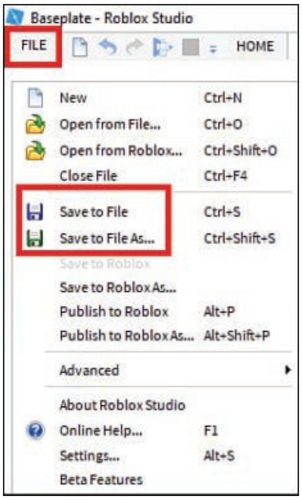


FIGURE 2.30
The Save to File commands are under the File option.

Publishing Your Project

What's the use of creating a game if no one can play it? To make it public and monetizable, we need to Publish the project by choosing the option Publish to Roblox. Publishing makes your game public and allows other players on Roblox to play it. Following are the steps to Publish to Roblox:

1. Select File, Publish to Roblox to open the publishing window.
2. Enter a name and an optional description.
3. When ready, click the Create button.

Reopening Your Project

When you want to reopen the project you were working on, you can find it on the Studio home screen (Figure 2.31) as follows:

- **File:** Select File, Open.
- **My Games:** If you have published your game to Roblox, your game will be in My Games.
- **Recent:** Look in Recent for all files that you've recently had open.

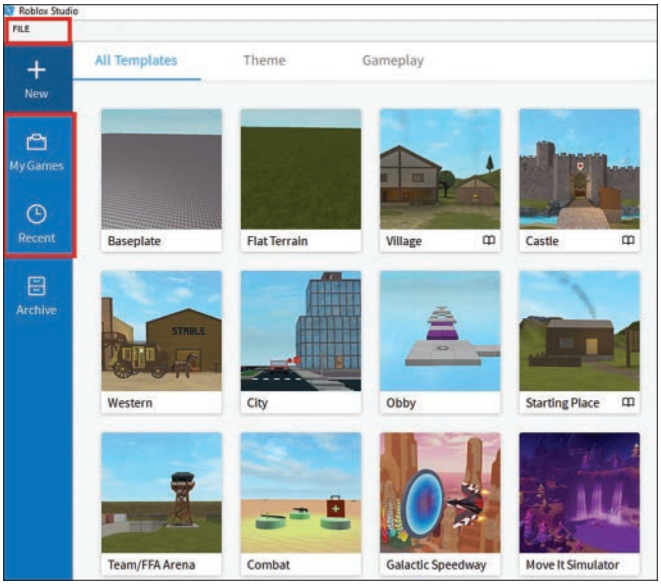


FIGURE 2.31
Reopen previous projects from the Studio home screen.

Playtesting

Playtesting is the process of playing the game to make sure everything works and figuring out how to make it even better. Don't skip this step because it's critical for a successful game. It's good practice to playtest your game whenever you make changes. You should also test your game in various modes. You can make changes in Play mode, but those changes won't be saved. You'll have to do them again when you go back to editing.

TIP

Playtesting Practices

When you playtest, do the following:

- Make sure your game works, particularly changes you just made.
- Look for areas that can be improved.
- When you are exploring or playtesting templates, make sure you thoroughly look at how the parts are named and grouped together.

Playtesting Your Game

To playtest your game, follow these steps:

1. Save your game. Don't forget to change the filename.
2. Press the Play button in the top menu bar. You can also find the Play button in the Home tab under the Test menu (Figure 2.32).

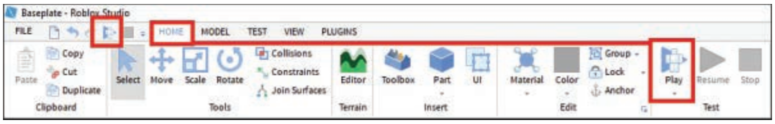


FIGURE 2.32
The Play button for playtesting your game.

Stopping Playtesting

To stop playtesting, press the red Stop button either in the top menu bar or under the Test menu (Figure 2.33). Stop the Playtest before making changes. Again, the reason for this is because you can't save changes in lay mode.

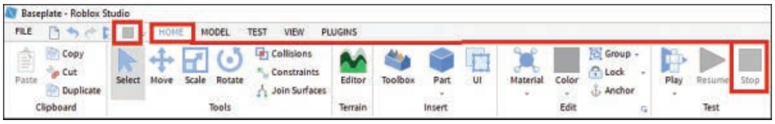


FIGURE 2.33
The Stop button for playtesting your game.

▼ TRY IT YOURSELF

Playtesting Practice

Playtest the following two templates:

- Village
- Obby

Before playtesting, you can modify the places where the parts are placed. You can drag and drop parts and watch how their properties change in the Properties window, and you can modify materials or delete them. Don't forget to save it or publish the template under a new name, and if you try to add parts or effects, make sure they are not in playtest mode.

Summary

In this hour, you've seen how easy it is to use Roblox Studio to create and share games with millions of players. You learned how to install and use the Roblox Studio, as well as how to arrange the workspace, make changes to your template, and save and publish games on Roblox to share them with the public. You also learned how to playtest your changes to ensure the success of your game.

Q&A

Q. What needs to be done if Studio isn't installing?

A. Make sure your system has the minimum system requirements. If it doesn't and Studio still ends up installing, there might be problems running Studio.

Q. Can I modify a template?

A. These templates are prebuilt projects you can use as a start for your own games.

Q. Can I save changes made during playtesting?

A. Changes made in Play mode won't be saved. You'll have to do them again when you go back to editing.

Workshop

Now that you have finished this hour, let's review what you've learned. Take a moment to answer the following questions.

Quiz

1. How do you organize your workspace?
2. Which two common starting point templates can be developed from scratch?
3. How do you move your avatar around during playtesting?
4. True or False: Publishing your project on Roblox makes it visible to everyone.
5. True or False: The Transform tool is an all-in-one building tool.

Answers

1. Closing the extra windows will give you more space to see what you're doing and keep the Explorer and Properties windows aligned below each other.
2. Baseplate and Flat Terrain are two commonly used templates on which a game developer can develop from an entire game world.
3. We use the WASD or the arrow keys to move around.
4. True. Publishing saves your work to a secure place and allows other players on Roblox to play your game. (To make it public to everyone, go to "Game Settings" after the initial publish.)
5. True. The transform tool is an all-in-one building tool. It moves, scales, and rotates in a precise way.

Exercises

Follow the exercise below to gain additional insight into the Roblox Studio.

1. Open a new Baseplate template.
2. From the Home tab, add a part block.
3. Find the new part added to the Explorer window under Workspace. Rename it as **`CenterPart`**.
4. Rename and save your baseplate; then publish it to Roblox.
5. Playtest your game.

This second exercise combines a number of things you've learned the last two hours. If you get stuck, don't forget to refer to the previous pages in this chapter! You're going to make a simple obstacle course (commonly referred to as an "obby" in Roblox).

1. Start with a couple of parts. Make sure that Anchored is enabled and place them in the sky. Feel free to color them any color that you want, or even add decals or textures!
2. Add another part at one end of the parts. This will be the start of your obstacle course game. Make sure that it is also Anchored.

3. Add your final part at the other end of the parts. This will be the end of your obstacle course game. Make sure that it too is anchored.
4. Playtest your game. Test out your game by flying over your starting point, clicking the blue arrow underneath Play in the Home tab, and choosing Play Here.
5. Bonus: Add a Spawn object from the Gameplay section of the Model tab at the top of Roblox Studio to avoid having to press Play Here and having all players start at the beginning. (It is anchored by default!)

TIP

Keep these tips in mind.

- Add at least five or six parts of differing sizes and shapes to create a jumping puzzle for players. The beginning jumps should be easier than later jumps.
- Playtest your game throughout the creation process to make sure you can make each jump and that all parts are anchored.

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