

# Roblox Studio: Game Development

Unleash your creativity in 3D.

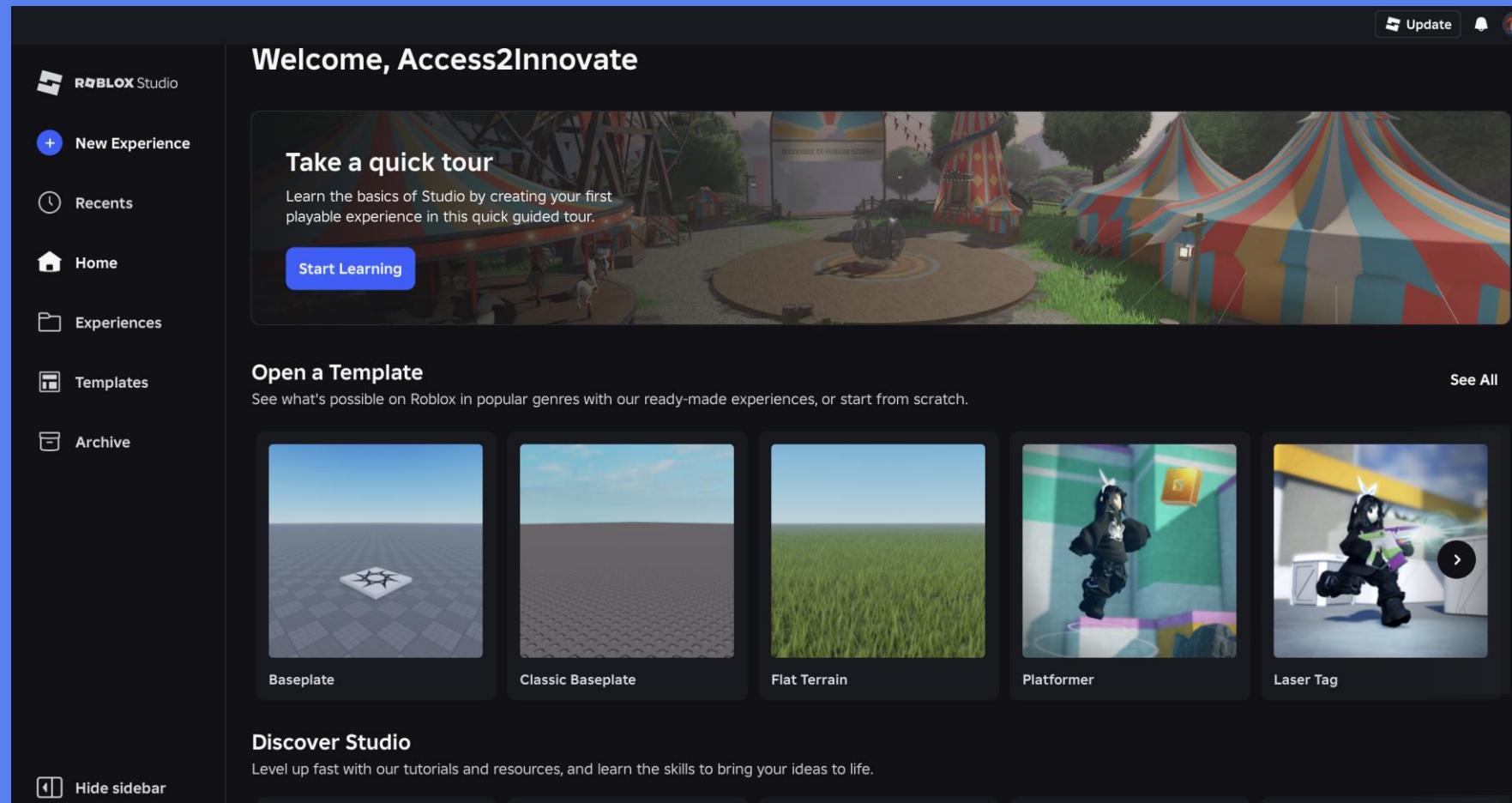


# Outline

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- Introduction to Roblox Studio
- Navigating the 3D Workspace
- Building with Parts and Tools
- Testing and Publishing Your Game
- Next Steps and Resources



# Welcome to Roblox Studio: Your Creative Hub

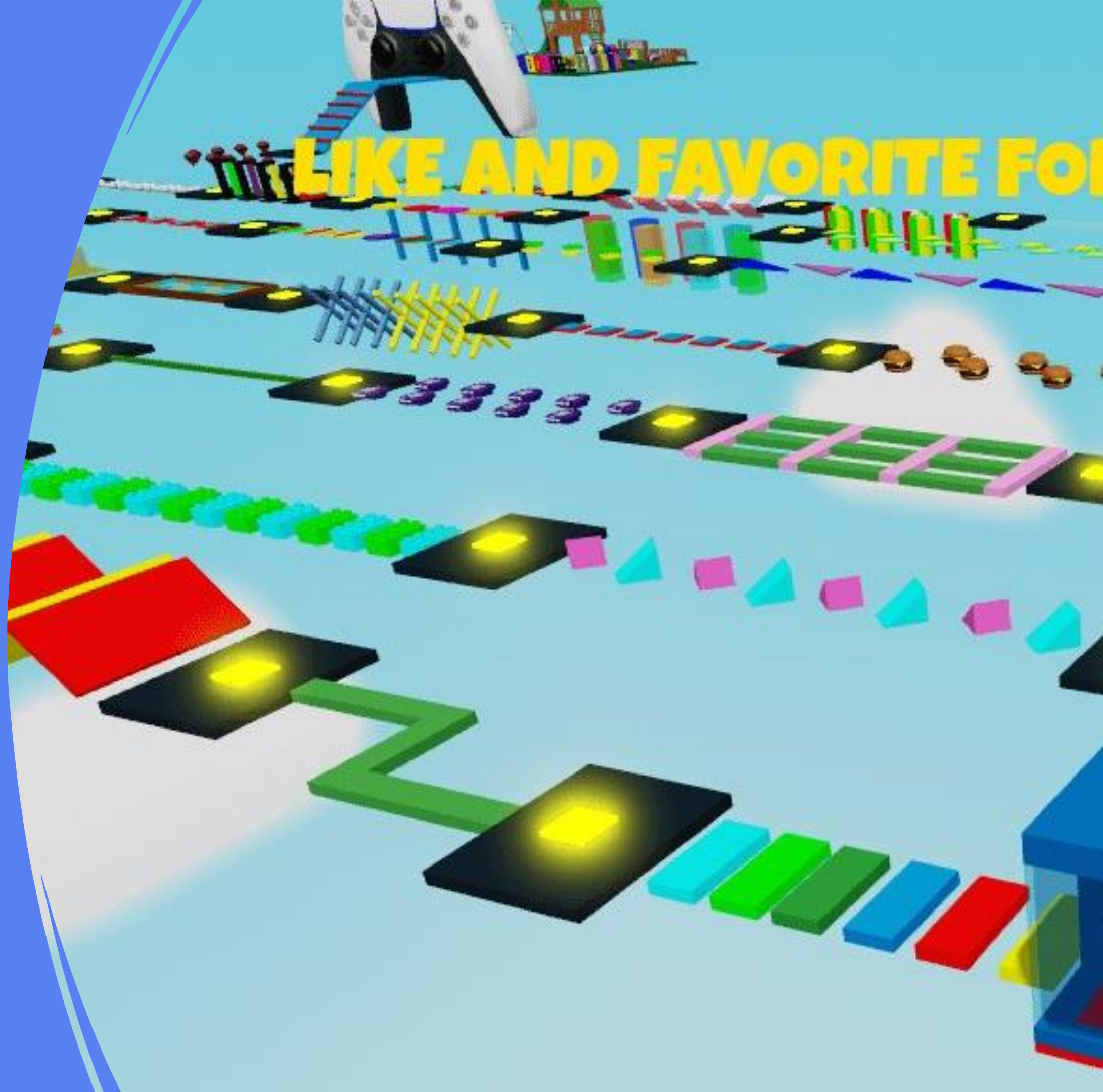
Roblox Studio is a free, powerful platform where you can design, build, and publish your own immersive 3D games and experiences for millions worldwide. It's a gateway to game development, coding, and unleashing your creative expression.



# What is an Obby?

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- Obby = obstacle or obstacle course!
- These are the most popular types of ROBLOX games and have been around the longest!





Some Examples...





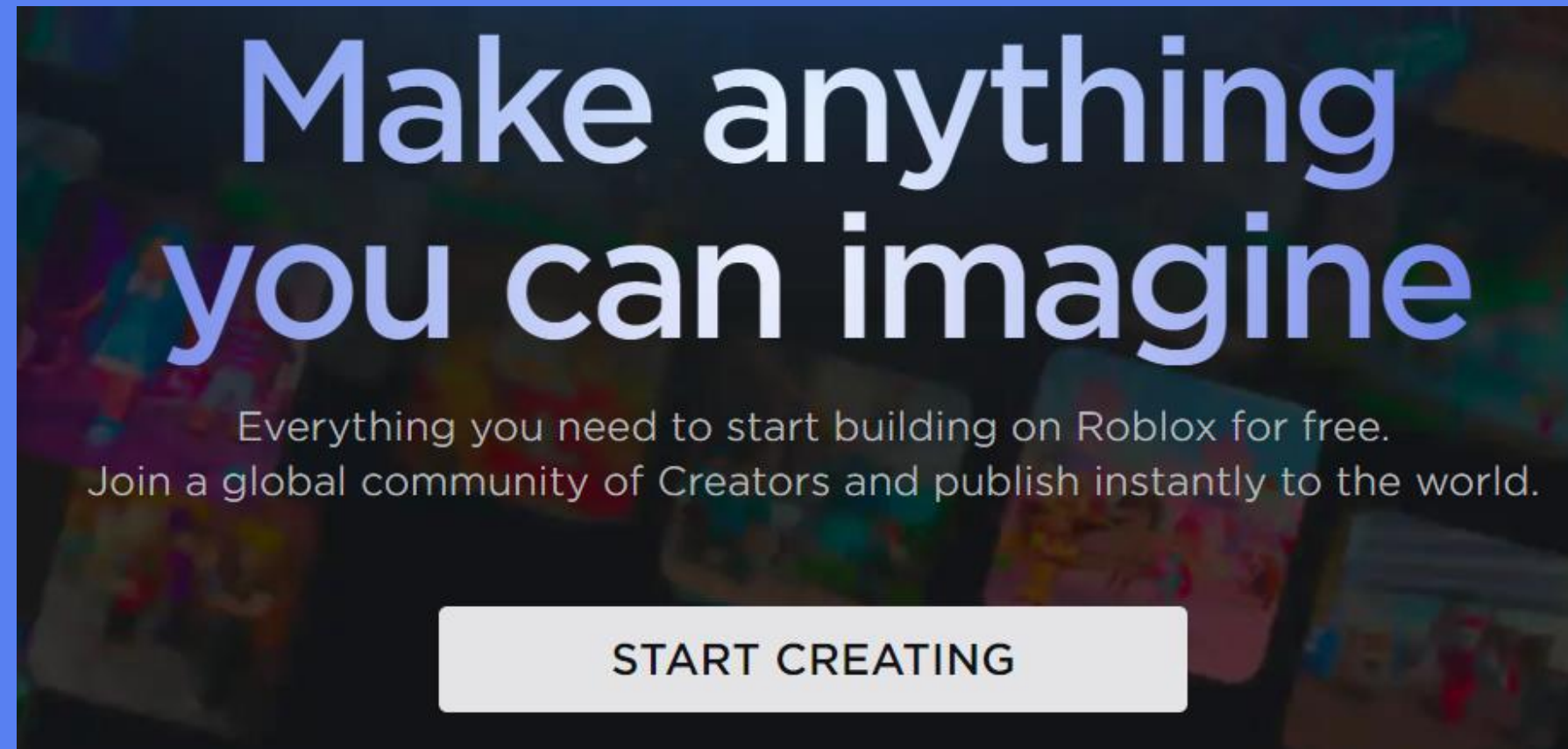
# What MAKES a Roblox Obby?

- Start point
- End point
- Checkpoints
- Obstacles
- Theme
- Name



# Download Roblox Studio

Go to: <https://create.roblox.com/>



Select "Start Creating" to download! Once it's done, open up the app.

# Make an Account

Make your usernames and passwords you can remember -- Write them down somewhere safe



**Login to Roblox**

Username/Email/Phone

Password

Log In

Forgot Password or Username?

Email Me a One-Time Code

Use Another Device

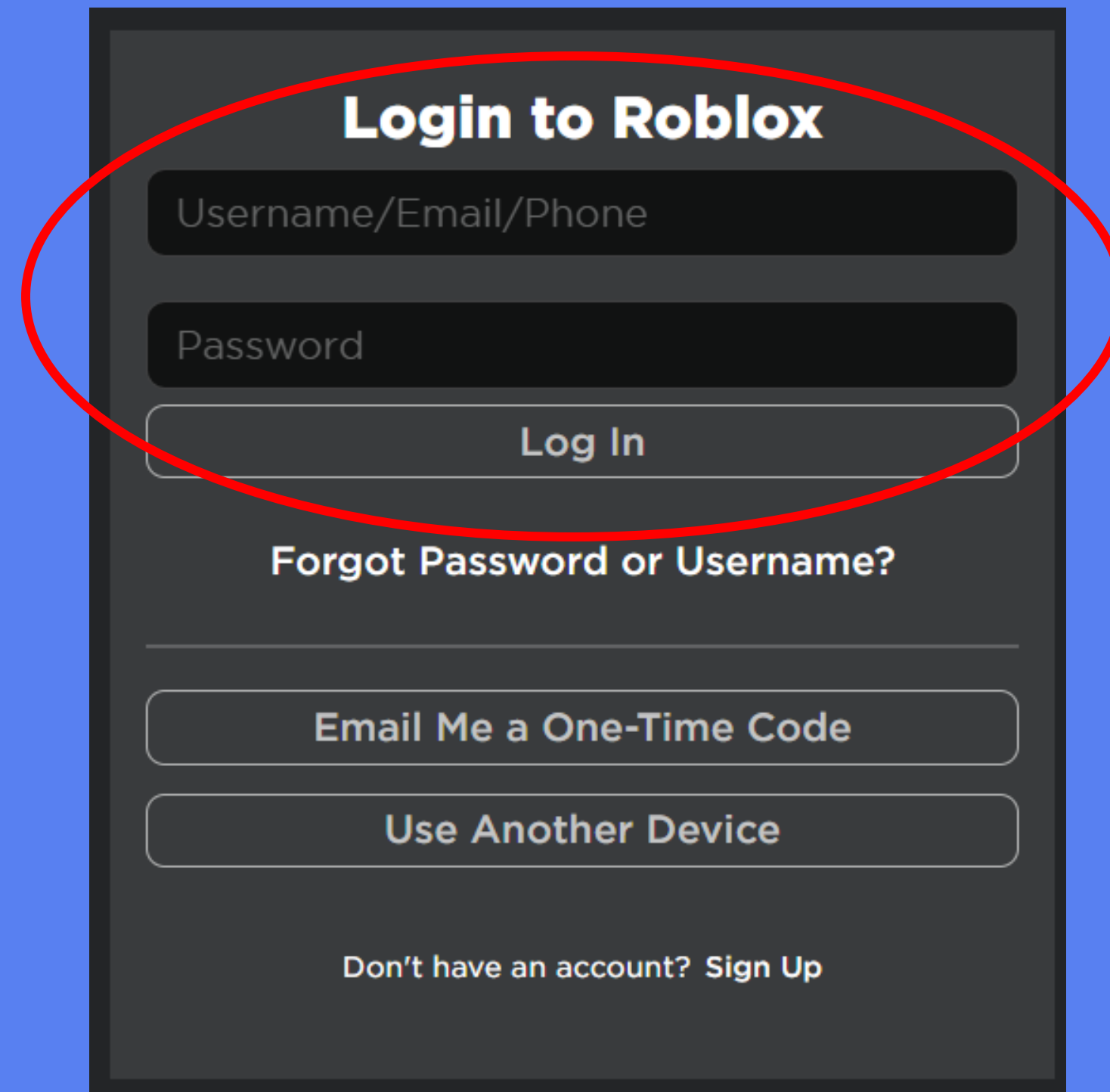
Don't have an account? [Sign Up](#)

The image shows a Roblox login interface. At the bottom, the text "Don't have an account? Sign Up" is circled in red, indicating the link to create a new account.



# Log In

Once you have an account, open the app and log in!



**Login to Roblox**

Username/Email/Phone

Password

Log In

Forgot Password or Username?

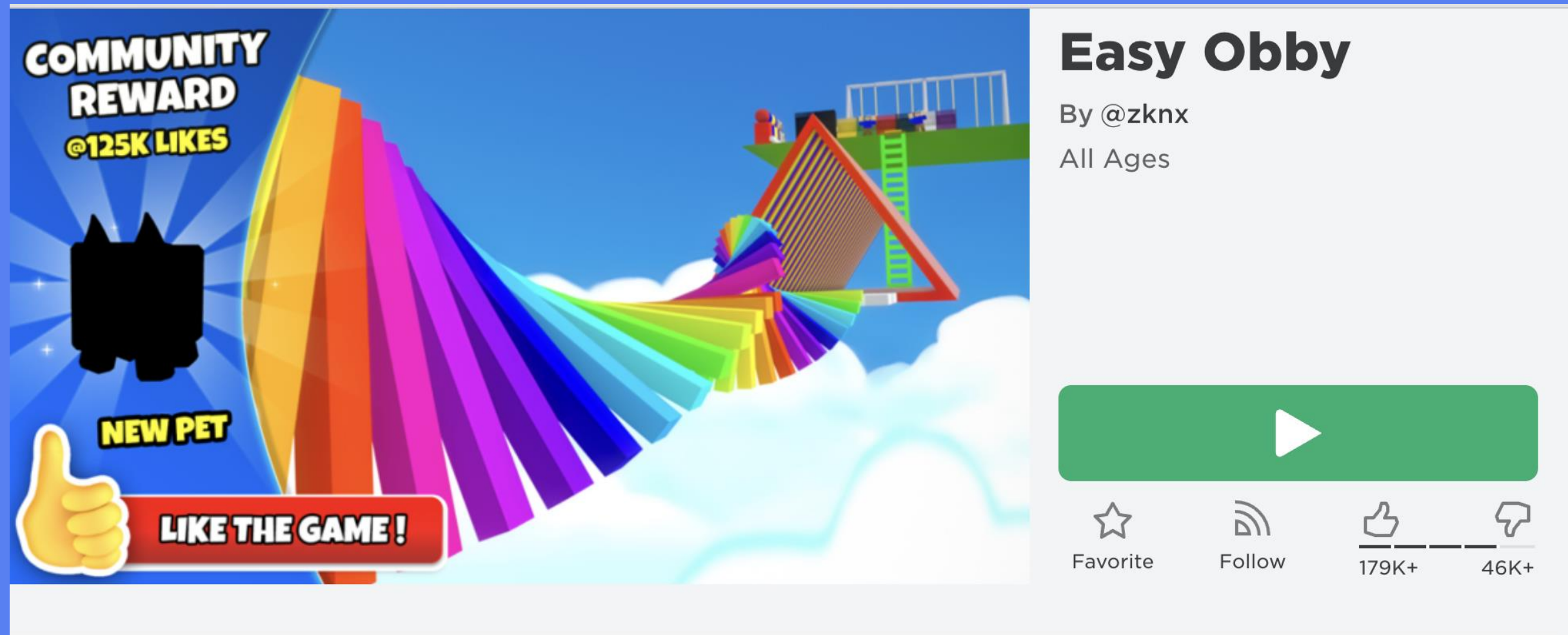
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Email Me a One-Time Code

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# Let's play an example!

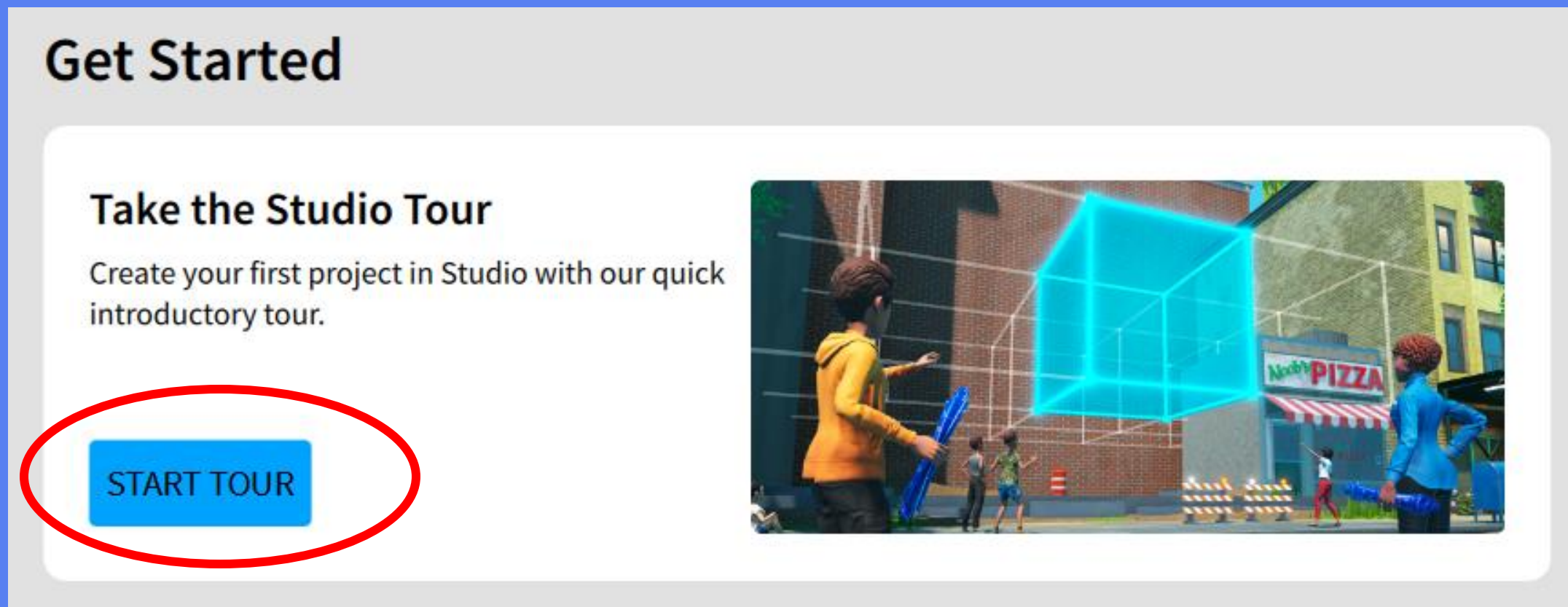


Example obby: <https://www.roblox.com/games/5972698540/Easy-Obby#!/game-instances>



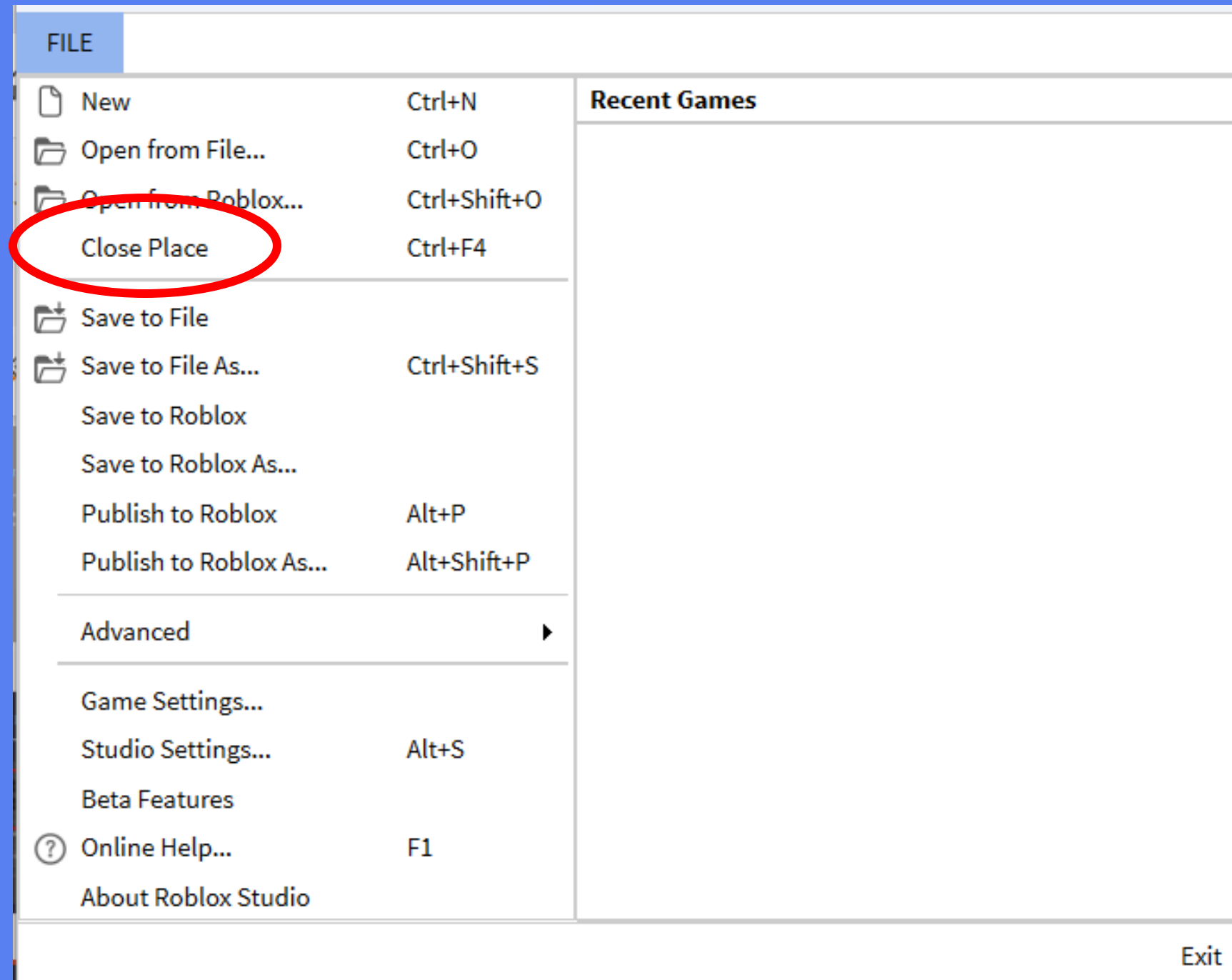
# Tour

Once you log in, select "Start Tour" to be guided through a tour of all of the functions for using this app.



# NOTE: How to Exit Tour

Once you have completed your tour, go to "file" and select "Close Place" to exit your tutorial.





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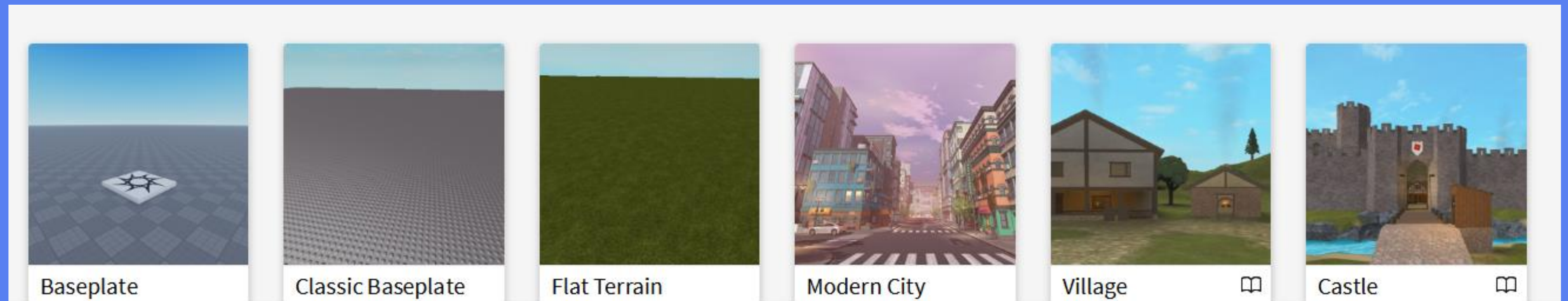
# Starting Your First Project: The Baseplate

Launch Roblox Studio and select 'New'. Choose the 'Baseplate' template; it's your blank canvas. This provides a flat, empty world to begin building anything you imagine.

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# Create a New World

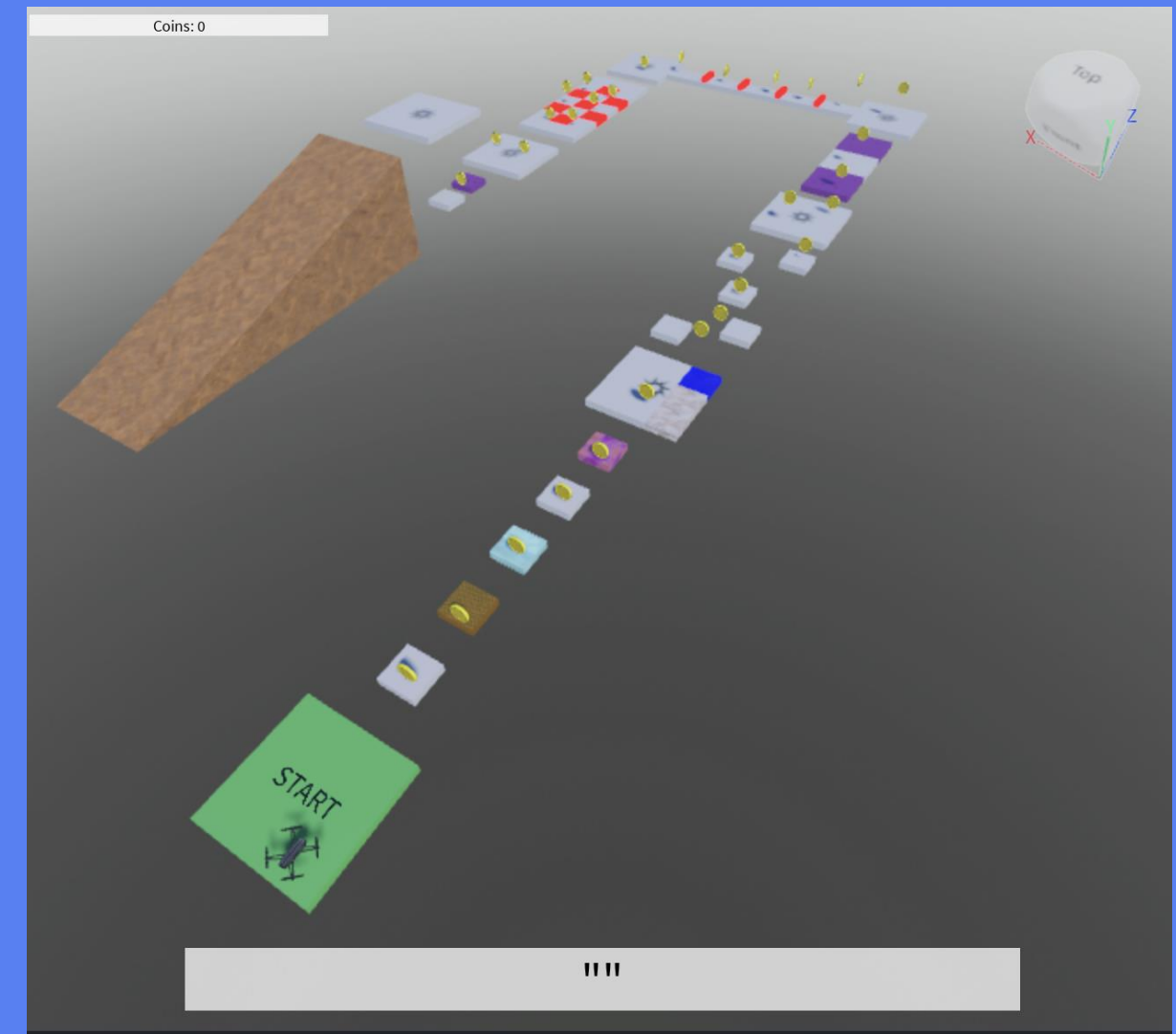
Now you can select any of the baseplates at the bottom and mess around in your new world! Just make sure you save your world before you quit, so it isn't lost!





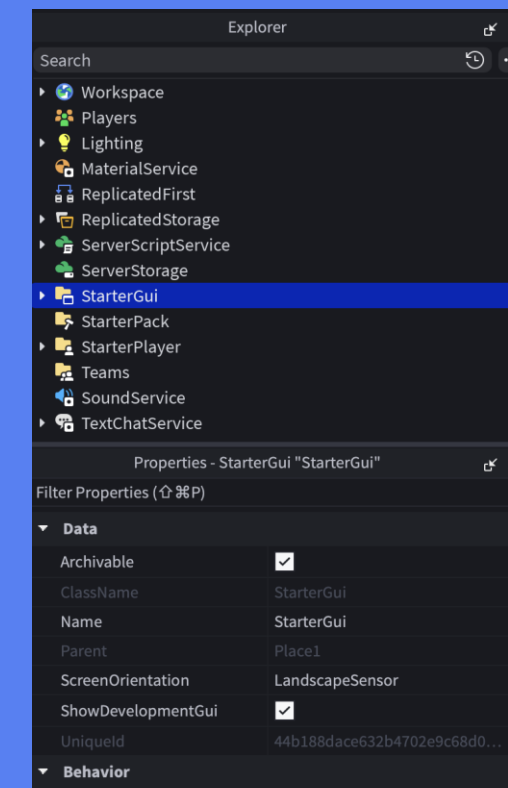
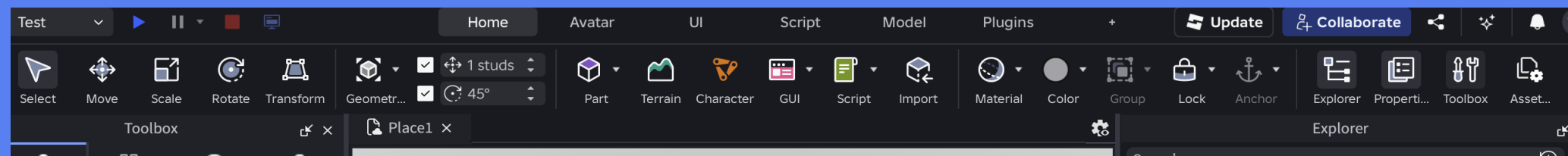
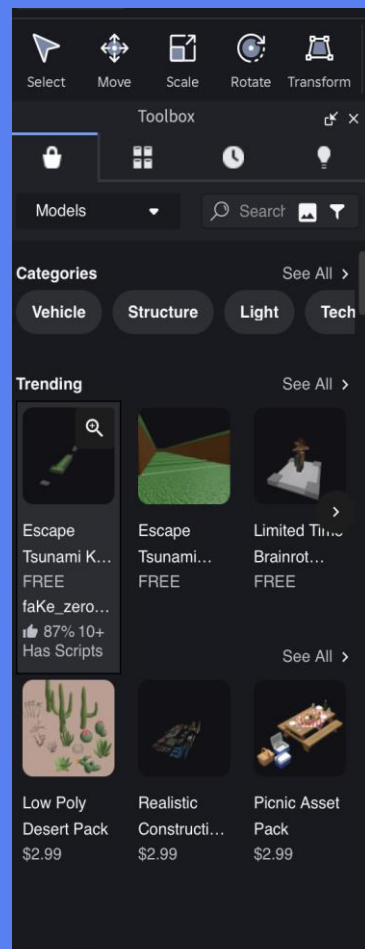
# Navigating Your 3D World: The Workspace

- Your game's central 3D building area.
- W, A, S, D: Move camera horizontally.
- E, Q: Move camera up and down.
- Right-click + drag: Rotate camera view.



# Understanding the Studio Interface: Explorer & Properties

The Explorer lists all objects in your game, like parts and scripts, helping you organize. The Properties window lets you modify selected object attributes such as position, size, and color.

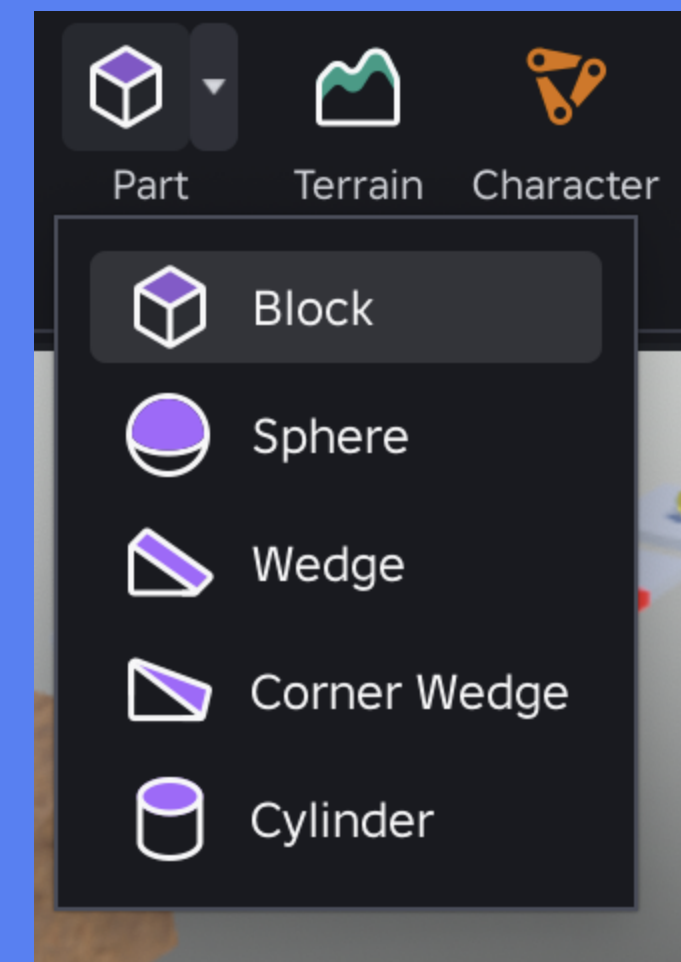




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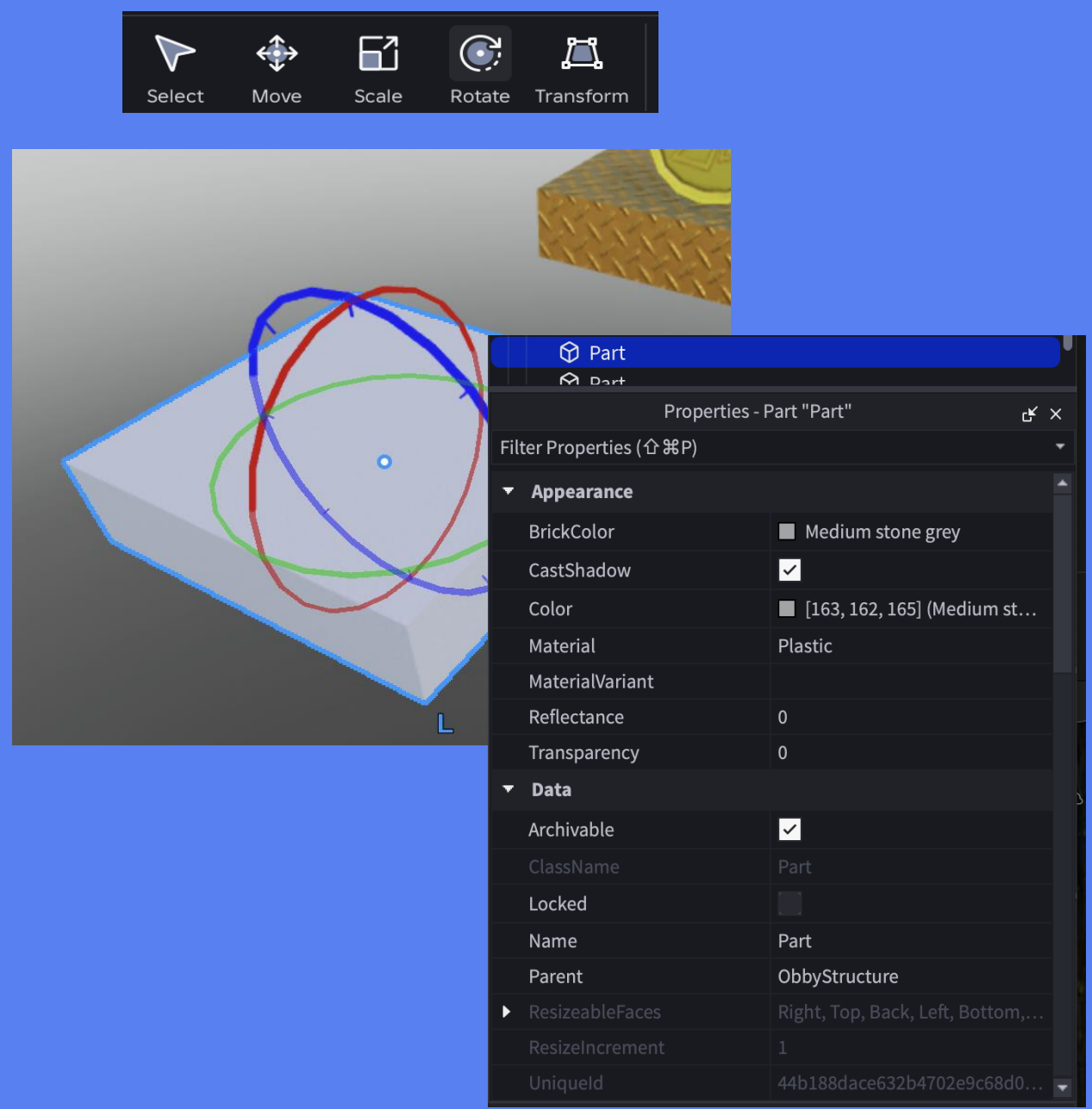
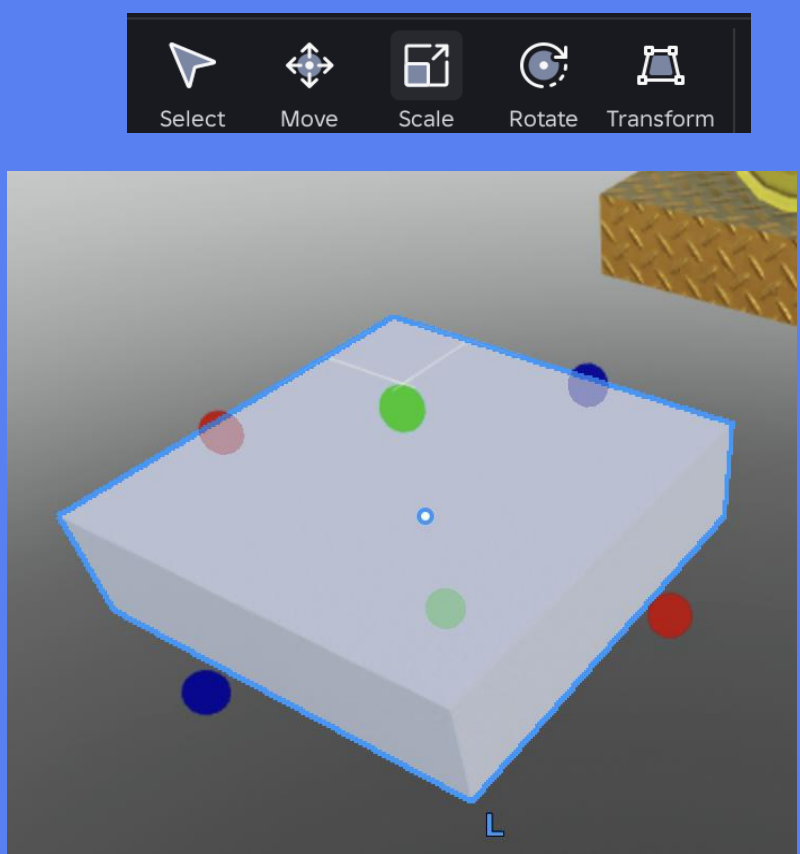
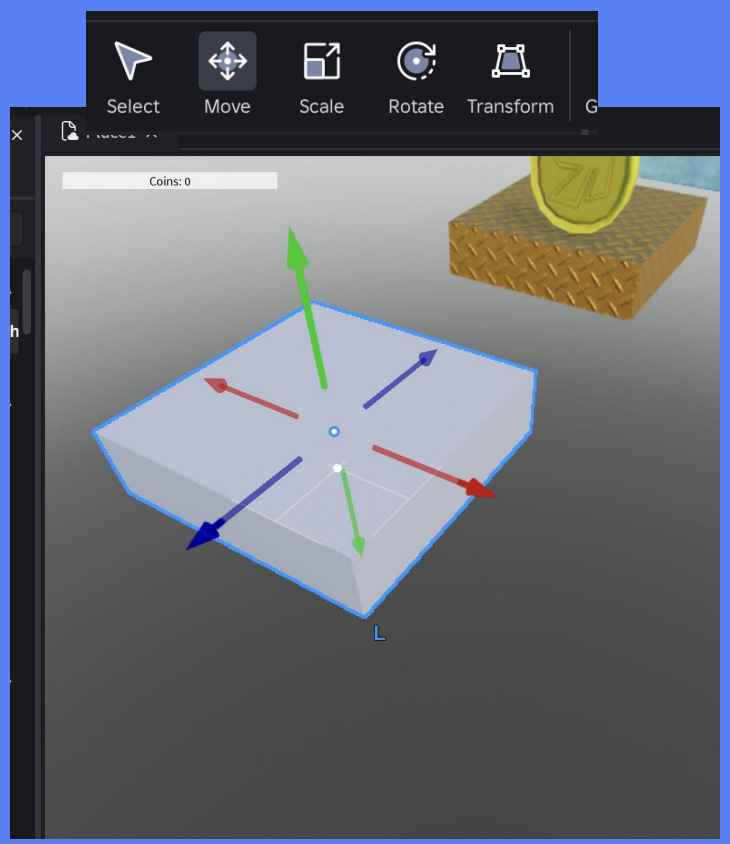
# Adding Basic Building Blocks: Parts

Start building by inserting 'Parts' like blocks or spheres. Use the 'Model' tab and click 'Part' to add them to your Workspace. These are the foundation for all creations!



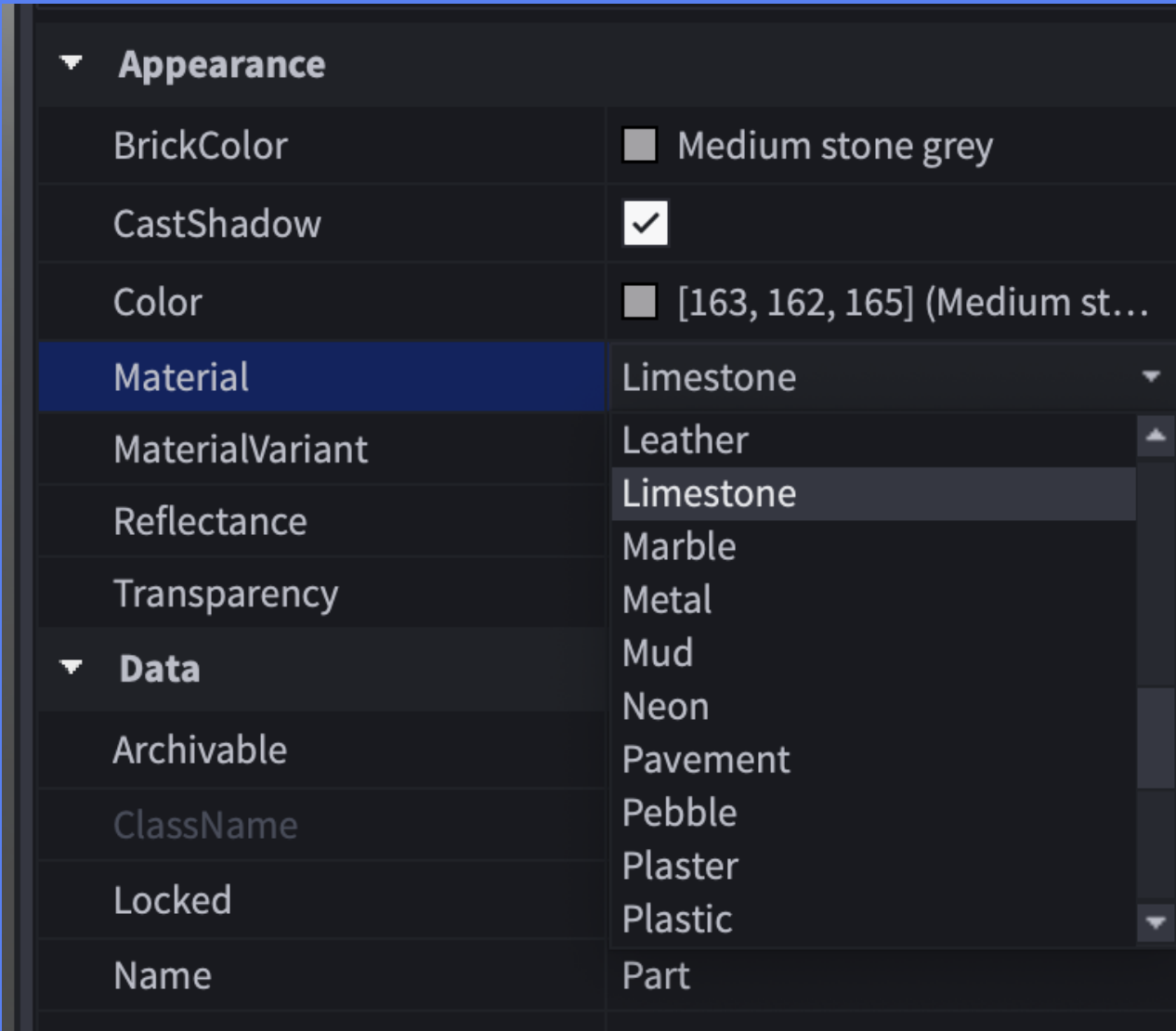
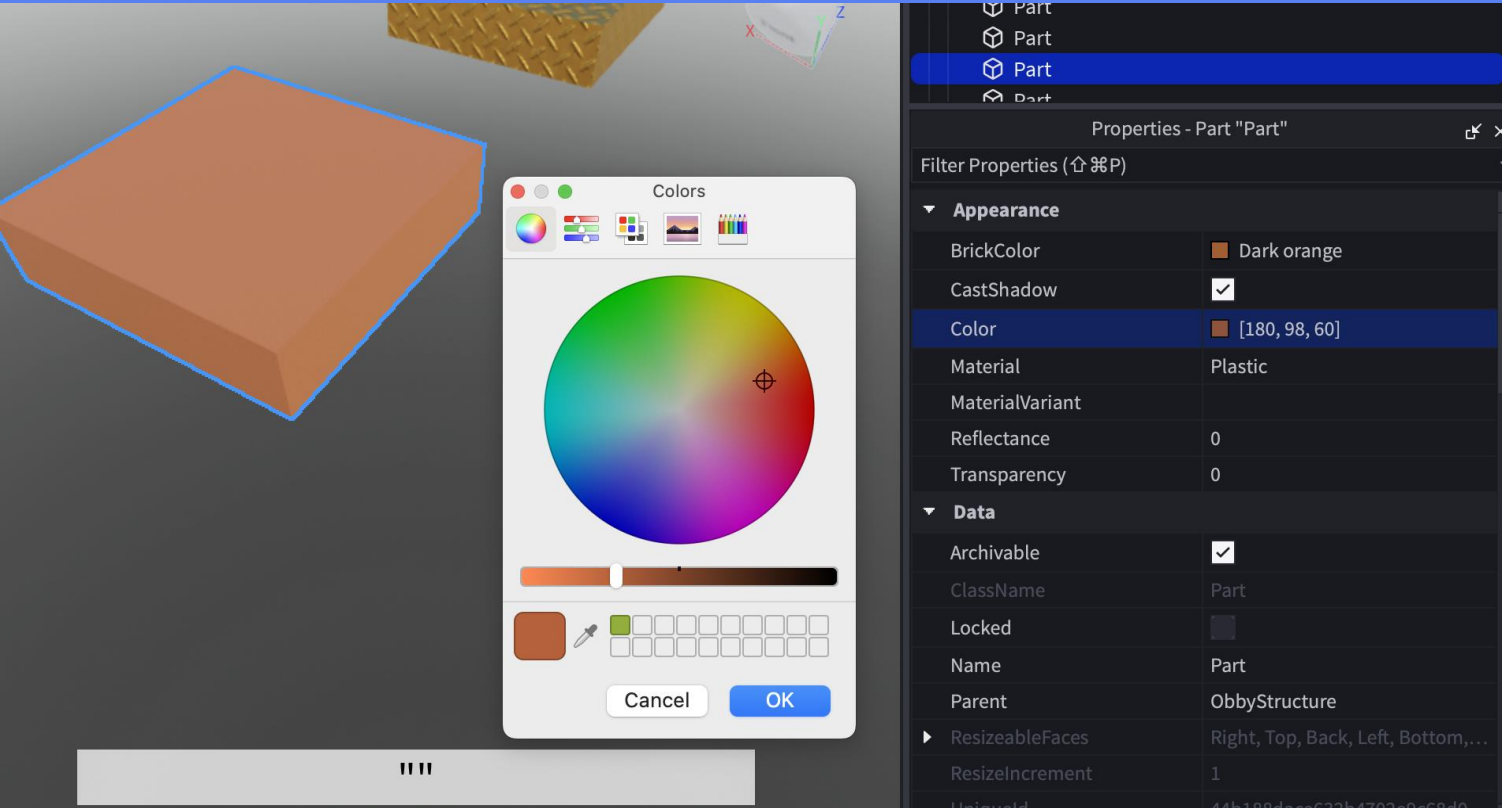
# Manipulating Parts: Move, Scale, Rotate

Use Move, Scale, and Rotate tools in the Model tab to precisely position, resize, and orient your parts. You can also input exact values in the Properties window.




# Customizing Part Appearance: Color & Material

Change a part's look using 'BrickColor' or 'Color' for hue. Apply 'Material' (e.g., Wood, Metal, Plastic) to alter its texture and surface properties. This makes your creations visually unique!





Properties - Part "Part" 	
Filter Properties (⇧ ⌘ P)	
CollisionGroup	Default
▼ <b>Part</b>	
Anchored	<input checked="" type="checkbox"/>
▶ CenterOfMass	0, 0, 0
▶ CurrentPhysicalProperties	<input checked="" type="checkbox"/>
CustomPhysicalProperties	<input type="checkbox"/>
Mass	11.2
Massless	<input type="checkbox"/>
RootPriority	0
Shape	Block
▼ <b>Assembly</b>	
▶ AssemblyLinearVelocity	0, 0, 0

# Anchoring Parts: Preventing Movement

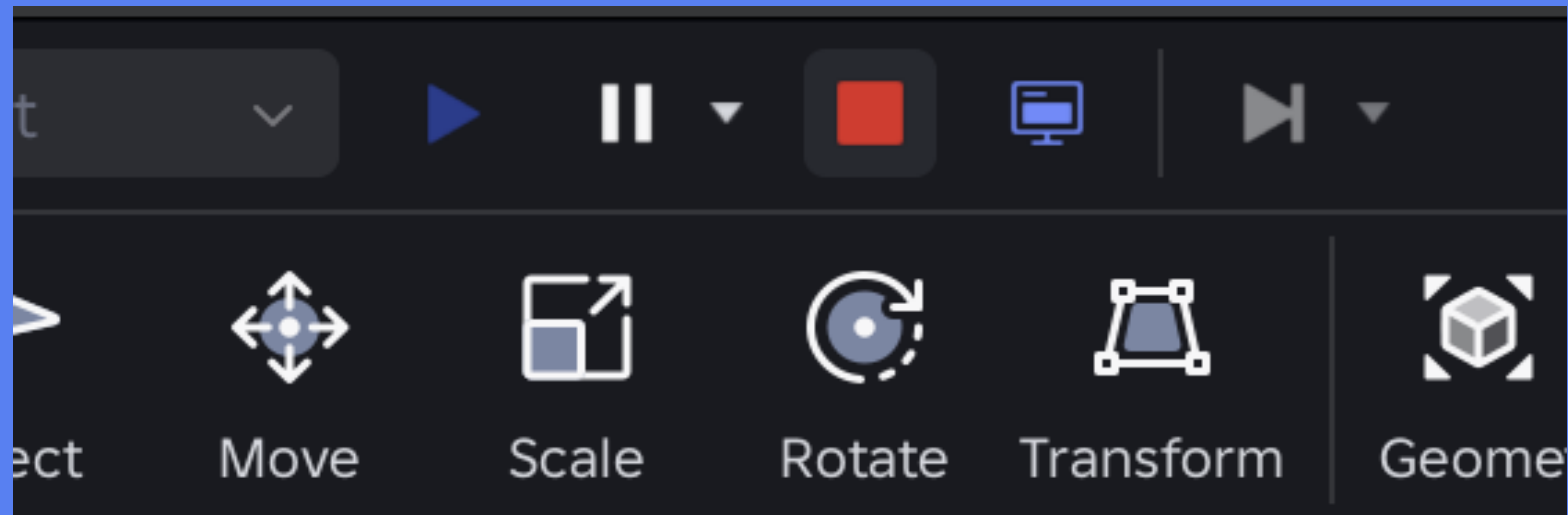
- Anchor parts to keep them still.
- Prevents falling due to gravity, physics.
- Crucial for platforms, walls, static objects.
- Unanchored parts move freely.



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# Grouping Objects: Maintaining Order

Group multiple parts into a 'Model' using the Explorer window. This organizes your project, simplifies moving complex structures, and keeps your workspace tidy. Models are essential for building larger creations efficiently.



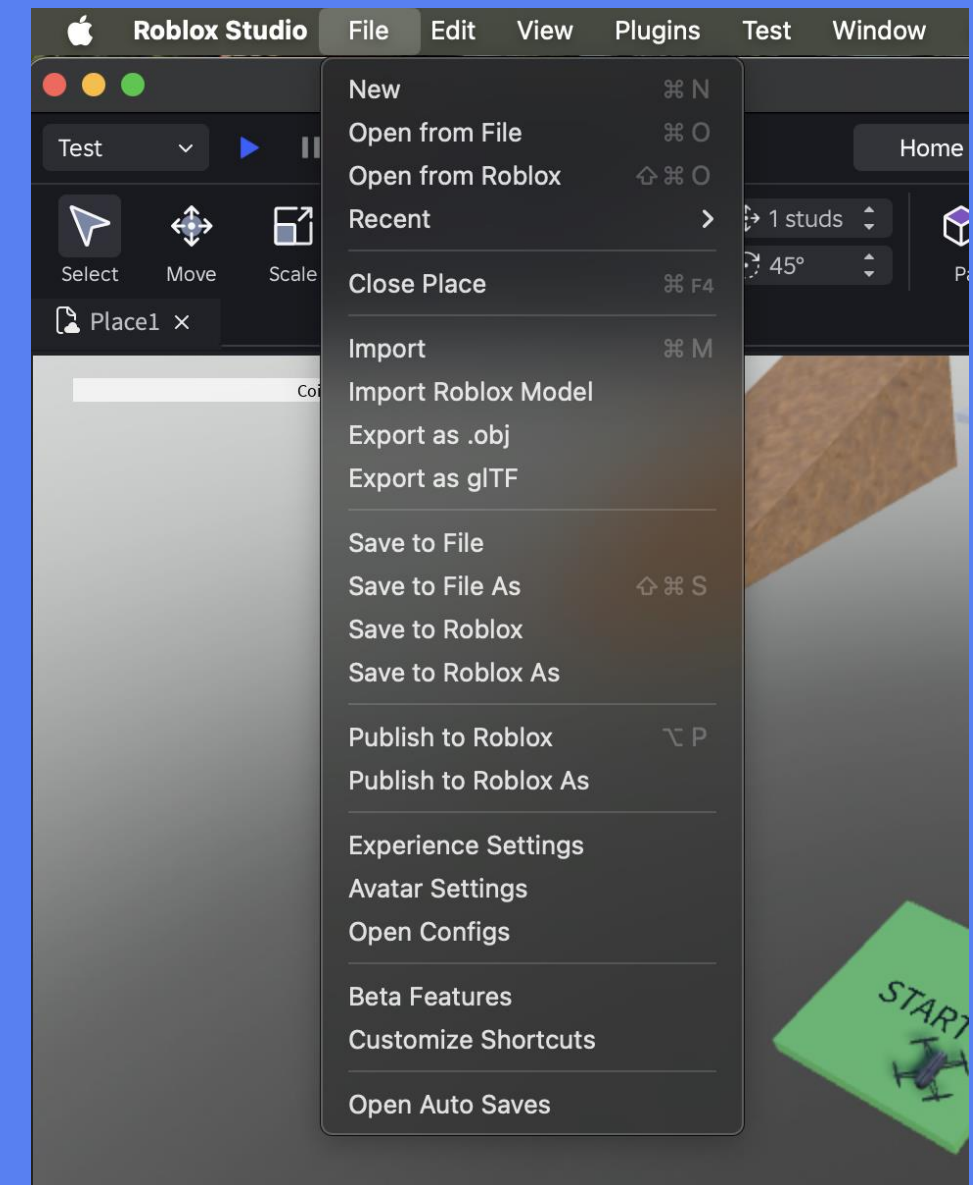
# Testing Your Creation: Play Button

- **Play:** Full game simulation, spawns at start.
- **Play Here:** Test from your current camera view.
- **Run:** Simulates game without player character.
- Quickly find bugs and test new features!



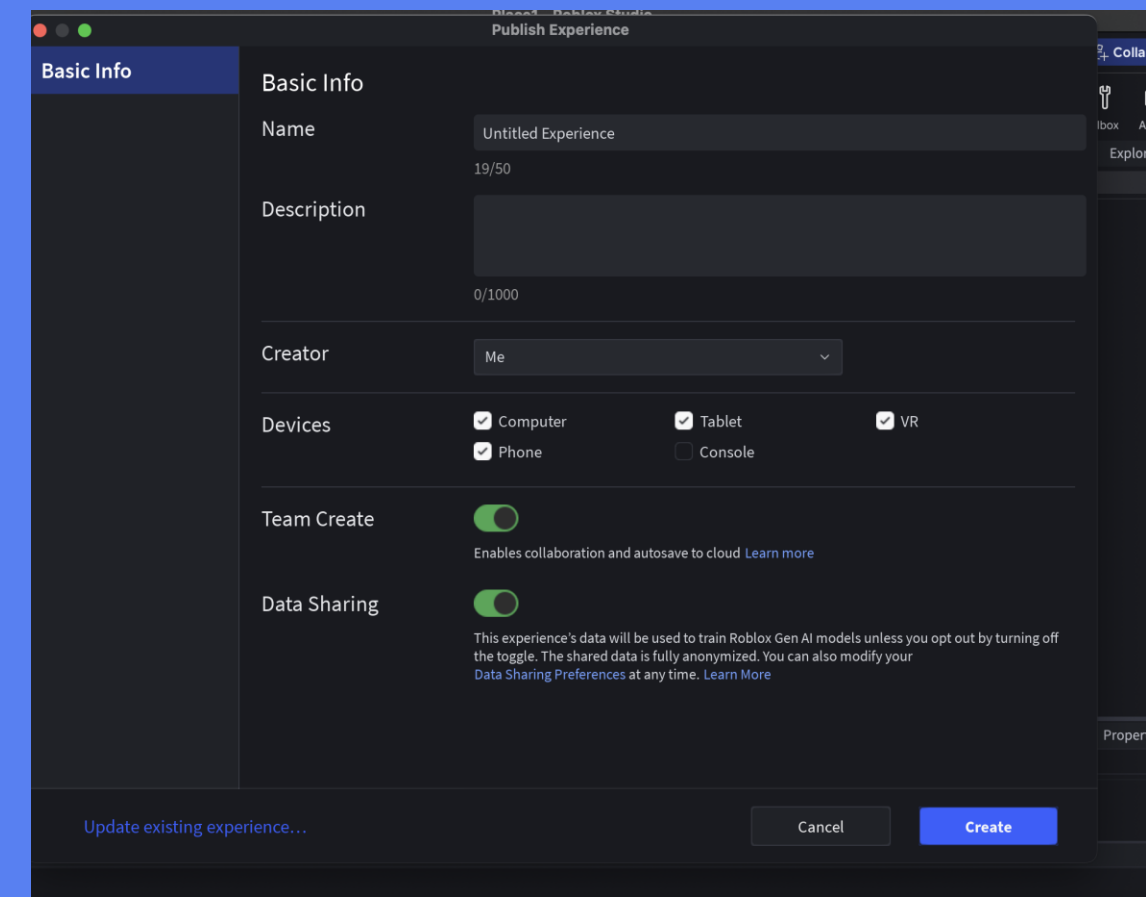
# Saving Your Progress: To Roblox or Local File

- Save to Roblox: Publish your game online!
- Save to Roblox: Share with friends and players.
- Save to File: Keep a local backup copy.
- Save to File: Continue working offline later.



# Publishing Your Game: Sharing with the World

Publish your game to Roblox Studio for others to play! Set its name, description, and genre. Choose privacy: public or private, then hit publish!



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# Build Your First Obby!

Using the tools we've learned (parts, colors, materials, anchoring), how will you design a simple, multi-stage obstacle course (Obby) that challenges players to reach the end?



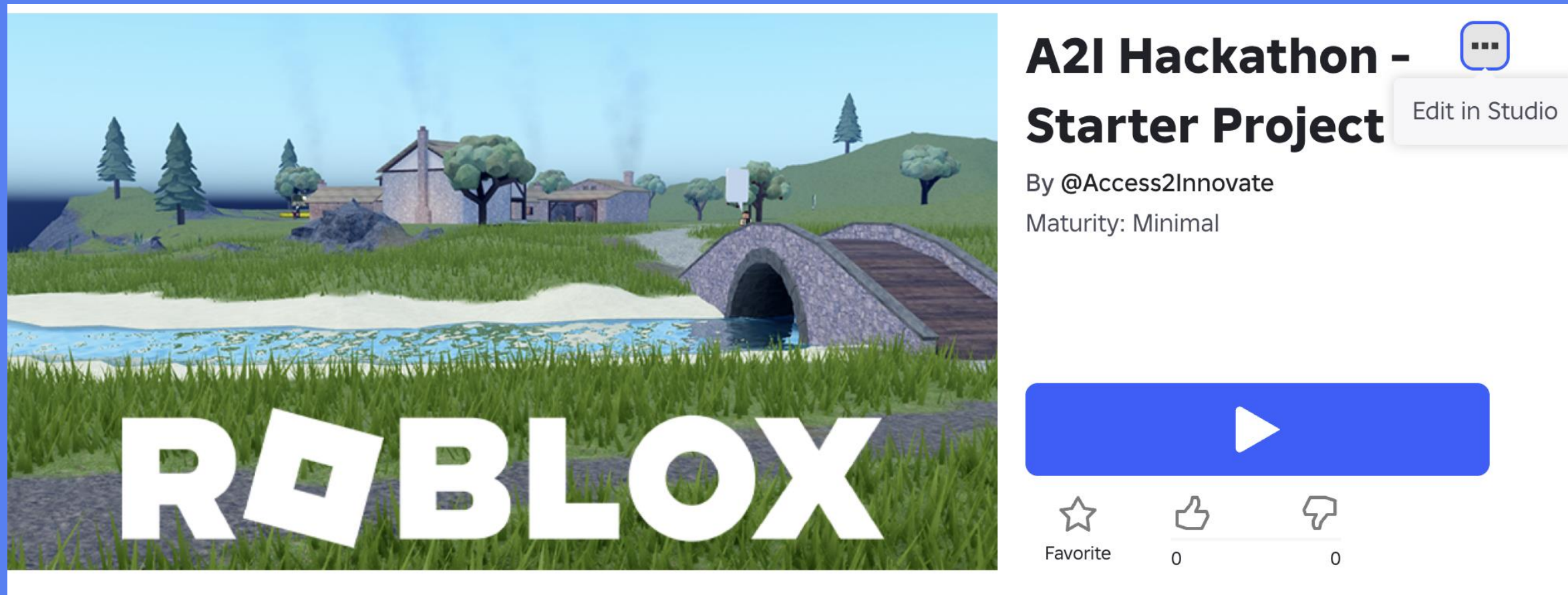


# Starter Project

Use this project as a starting point for your own obby with the drone and the coin scripts already in the project!

Copy the file from roblox and open it up in roblox studio

<https://www.roblox.com/games/122749945128848/A2I-Hackathon-Starter-Project>



Play Demo Here: <https://www.roblox.com/games/16494403520/A2I-Hackathon-Example-Drone-Obby>

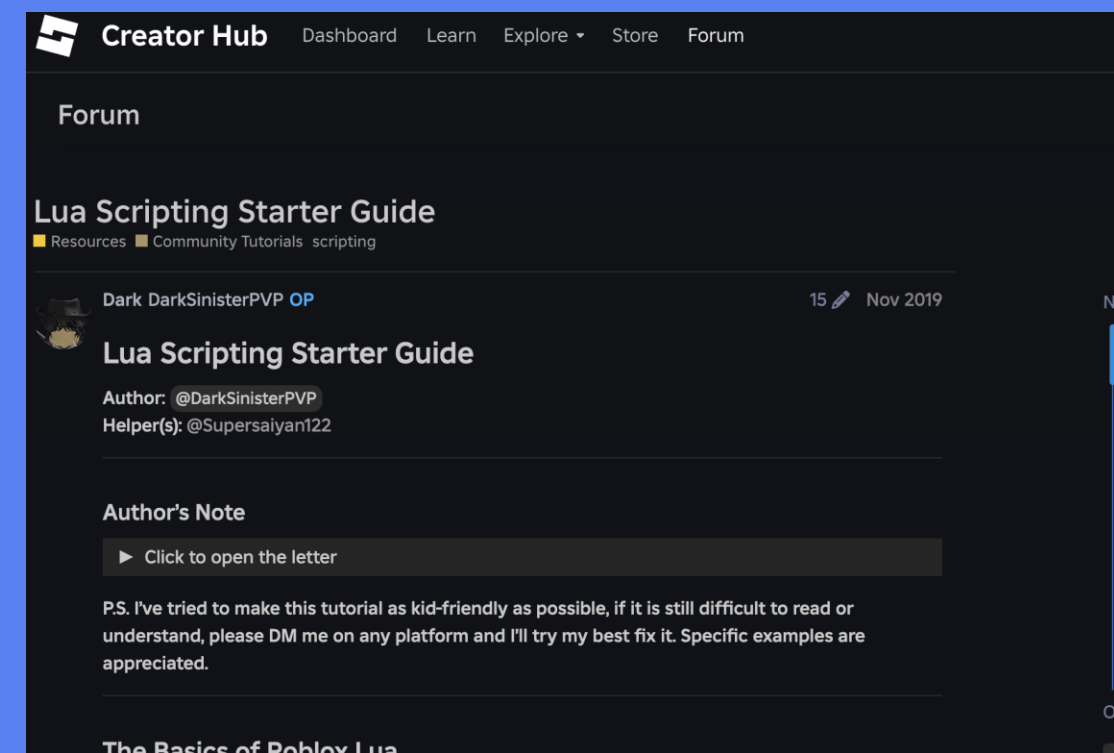
# Beyond the Basics: What's Next?

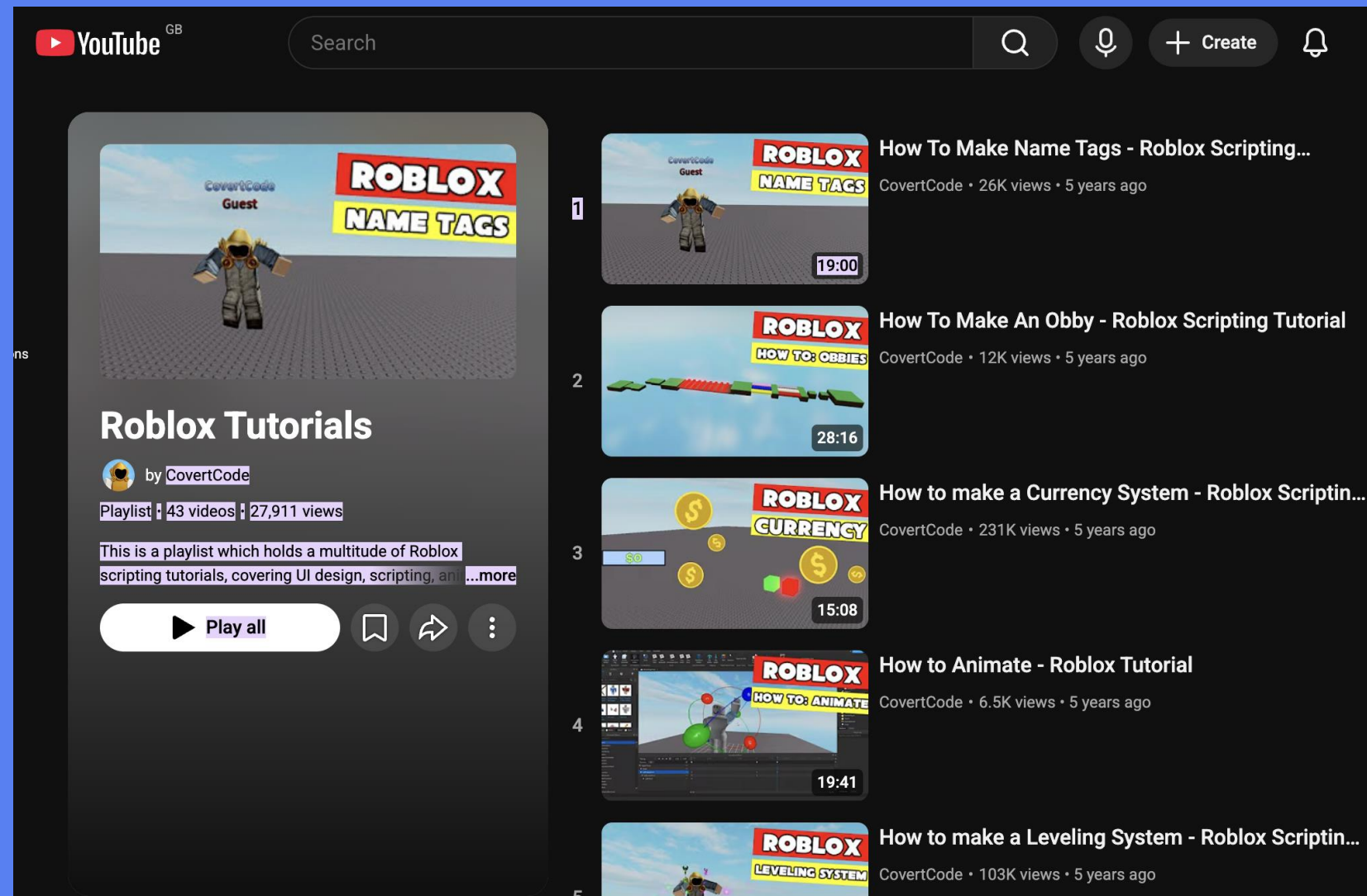
Ready for more? Learn Lua scripting to create custom game logic and UI. Explore the Toolbox for assets, then design unique game mechanics. Your imagination is the limit!

<https://devforum.roblox.com/t/lua-scripting-starter-guide/394618>



```
1 script.Parent.Touched:connect(function(hit)
2     if hit and hit.Parent and hit.Parent:FindFirstChild("Humanoid") then
3         hit.Parent.Humanoid.Health = 0
4     end
5 end)
```





<https://www.youtube.com/playlist?list=PLfie92NjUDbguqHG8MrxnJvrFhBpMUAUD#:~:text=CovertCode,19:00>

# Resources for Continued Learning

- Roblox Creator Documentation: Official guides and tutorials.

<https://create.roblox.com/docs/tutorials>

- Roblox Creator YouTube Channel: Video lessons and tips.

- Developer Forum: Ask questions, get community help.

<https://devforum.roblox.com/>

- Luau Language Reference: Learn the scripting language.

<https://devforum.roblox.com/t/luau-how-to-learn/1506809>



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# Other Resources

<https://www.youtube.com/watch?v=m65GWDcHC30>

<https://www.youtube.com/watch?v=k4ZPKRpqpl>

<https://www.youtube.com/watch?v=9MUgLaF22Yo>

<https://www.youtube.com/shorts/snArhkhzls>

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# Conclusion

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- Roblox Studio is a powerful, free platform for 3D game development.
- Understanding the interface (Explorer, Properties) is crucial for organization.
- Basic parts and manipulation tools form the foundation of all builds.
- Testing and publishing are vital steps to share your creations.
- Continuous learning through scripting and advanced features expands possibilities.