What you need:  • Bloxels Game App (free)  • Bloxels Gameboard  • Tablet

Using the Bloxels Gameboard, blocks, and app you can build levels, heroes, and villains to make a complete game from start to finish. The entire game is made on a 13x13 grid. Each room in your world, each character, enemy, and design element is created on a simple 13x13 grid. This introduction will take you through using the Gameboard, designing a room, a character, an animation, a board, and how to put them all together.

You can use the Bloxels Gameboard to create your game designs, or you can create almost everything directly in the app. To create a game you will need to design:

• A game world—basically a path for your character to follow from the beginning of your game to the end.
• A hero character—or you can use the default character
• At least one enemy animation—or you can use the default enemy
• Boards—think of these like stickers that decorate your game turning a green block into grass or stone, or turning a pink block into a treasure chest.
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Bloxels: General Introduction

The Bloxels **Main Menu** icons take you to different places:

- **Game Builder**—go here to create and edit your game!
- **Infinity Wall**—go here to publish your creations, to “buy” game elements that others have made, or just to see what others have published.
- **Featured**—Game components you can “buy” with gems.
- **Settings**—Mostly just music and special effects volume.
- **Poultry Panic**—Beat this game and earn 5 gems.
- **News**—Stories and news from Bloxels.

![Game Builder](image)

**GAME BUILDER**: Build New Game

The pictured 13x13 grid is your game world. The center room is automatically populated a default layout. Click on any square to begin editing that room.

The map icon can be clicked on from throughout the game creation process to move throughout your game world.

Top Center Menu from LEFT to RIGHT:

- **START SCREEN**—Create or edit a new or saved game.
- **ANIMATIONS**—Create enemies, spinning coins, or any game component that moves.
- **BACKGROUNDS**—Design the background that goes behind your entire game world.
- **CHARACTERS**—Create your hero characters.
- **BOARDS**—Create every non-moving game element. Ex: grass, ladder, decorations, etc.

The top right icons are: Challenges, Help Menus, and Main Menu.
Using the Gameboard

When you design the layout of a room on the gameboard, the colors of the blocks matter. Follow this color guide in creating your layout:

- Green = Terrain (land)
- Blue = Water
- Red = Hazard
- Yellow = Coins
- Purple = Enemies
- Pink = Power-ups
- White = Story Blocks
- Orange = Exploding Terrain

When you finish your room design, take a picture of it on your device, using the Bloxels app. From the main menu, choose Game Builder and Build New Game. Choose a square on the grid and then tap the camera icon. Take a picture of your board design and the app will configure your layout based on the colors you used.

Depending on the lighting of the area you are in, the colors may or may not capture correctly. If they don’t match the colors on your board, please ask staff for assistance adjusting the brightness settings on the camera.

This same method of capture can be used for creating characters, boards, and animations. The only difference is that the color blocks on these designs do not matter like they do for room layouts and many more colors exist in the app that you can make your designs with.
Bloxels: Design a Room

If you are using the gameboard, follow the directions on the reverse side of this paper.

If you are designing a room in the app, use the **primary colors** located on the right side of your screen. Notice the eraser, copy, and paste icons below the colors. Once you have your room designed, tap on the **CONFIGURE** tab at the bottom right of the screen.

The **CONFIGURE** tab is where you add extra detail to enemy and power-up blocks. These blocks will have a green arrow above each of them. Tap on each block to assign it an enemy or power-up type. For example, you can choose whether an enemy (purple) is a patroller, flyer, or turret. For power-ups (pink) you can select from bomb, health, jetpack, shrink potion, or invincibility. This is also the tab where you place your **hero character and select music**.

Note: You need the Bloxels Gameboard to make enemy brains (more complex enemies).
Bloxels: Design a Room

After you have Configured your power-ups and enemy blocks, tap on the DECORATE tab. The panel on the left side of the screen allows you to select ANIMATIONS or BOARDS to decorate each block in your room. A few default designs, such as dirt, grass, and coins are available for you to use, but you can create your own animations and boards using the icons on the top center menu. You can also “buy” boards and animations that others have made off the INFINITY WALL using coins you have collected during game play or earned by selling your designs on the INFINITY WALL.

In order to fully design a room, you will need to invest time in creating boards and animations so that your room looks just as you want it to.

In addition to the boards that your character can interact with (example: coins to collect, enemies to fight, land to walk on, etc.) you can also create designs that are in the background of each room. To do that, click on the icon at the bottom of the screen that looks like a window. When you place boards on this screen, the designs will only appear in the background and cannot be interacted with. So in this picture, the ladder is only a visual and can not be climbed.
A character is your hero of the game. You can design your own by selecting the CHARACTER icon and either taking a picture of your board or designing one completely within the app. Either way, for each character you design what they do when they are Standing Idle, Walking, and Jumping. Start by designing the Idle character. At the bottom of the screen you can add frames so that the character is animated (moves).

The pictured character below is one design of the Jump version of the character. In order to make the dog’s tale wag while he is jumping up and down, five different versions of the character have been created in sequence. You can adjust how quickly the animation moves from frame to frame by increasing or decreasing the Frames Per Second.

Use the copy/paste icons to quickly recreate your work from the Idle character to the Walk character. The more animation you want your character to have, the more frames and changes you'll need to add.
To expand your color choices, the menu to the right can be expanded by tapping on the small **arrow tab** next to the color palette. Only 8 colors can be used on any one board/design, so choose your colors wisely.

Tap on the green **play button** to test out your character design in a simple game room.
Animations are any moving design element, including enemies, spinning coins, flowing water, or other game characters that aren’t the hero. Animation designs are different from characters in that they don’t have multiple actions to design (walking vs jumping). To start, click on the ANIMATION icon at the top of your screen.

To add your animation to your game, open a room you’ve designed. From the DECORATE tab, open the Animations panel on the left side of your screen. Find your created animation, tap on it to select it, and then tap on the block in your room that you want to add it to.
A Board is any 13x13, non-moving design you make to decorate your game world. Boards can be grass, clouds, flowers, bricks, dirt, bridges, ladders, diamonds, treasure chests, flags, signs, etc. The below picture is of the grass board that comes with the Bloxels app. You can see how the 8 colors on the right side-panel are used throughout the design.

To design your own board, click on the BOARD icon on the top center of your screen.

Select colors from the expanded color menu by clicking on the arrow at the top of the color panel.

Once you’ve designed your board, go into your game and go to the DECORATE tab. Open your Board panel on the left side of the screen, find and tap on your board, then tap on the block where you want that board to live.

Think of boards like stickers. The design does not change the functionality of your block. If you placed a terrain (green) block in your room design, but decorate it with a water design, it will still function like land and you will not be able to swim in it.

See the “Design a Room” instructions for placing boards in the background of a room. Decorating the background of the room would be like walking past a tree—your character can’t interact with it, but instead just passes it by.
A Game Background is the design that goes behind your entire game world. Background designs can be very simple, like the blue sky and clouds design pictured below, or very complicated. A background is made up of a 13x13 grid. Each square in the grid is a Board that has been designed to fit together with other boards to create a larger design.

To add a background to your game, go into a game room and tap on the DECORATE tab. Click on the Background icon at the bottom of the screen. Your available backgrounds will show in the side panel on the left and you can tap on which one you want to add to your world. Any edits you do to your background will automatically update in your game world until you publish your game.
The white story blocks serve as checkpoints in your game. They can also make your game more engaging with dialogue and background information. They provide information to your player, such as warning them about an upcoming challenge or enemy or guiding them to the next room or task. You can create a whole story about your game world and character!

To set up your story blocks, enter a game room and go to the CONFIGURE tab. Tap a white block to enter the text you want to appear when your hero reaches that checkpoint and tap “SAVE”.

You can decorate your story block by going to the DECORATE tab. Select an animation or a board on the left menu, then tap the white block to apply it.

Now when your hero reaches that block, it will look like the animation or board you chose. A small speech bubble will appear and you can press TALK to see the text that you configured for that block.

On the configure tab, you can check an icon to “Set As Game End Flag” if you want the checkpoint to be the final task of your game. If you do, the game will end when your hero reaches that checkpoint.
Putting together all of your designed elements into a game is a lot of fun! Now that you’ve designed a character, a bad guy, various boards and animations, you can build your game world. It helps to have an idea of what you want your game’s goal to be before you start designing your world. Is it just surviving until the end? Is there a big bad guy? Is your world under water or above ground—or maybe a mix of the two? Whatever you decide, choose your starting place on the board, the first room your character will start in, and design it. Here are some tips to keep in mind for designing a good game:

- Each room connects to the next room. Your rooms need to be touching in order for your character to play through them.
- If you don’t put walls around the outside edges of your room, your character can fall.
- Your character can only jump so high. Make sure you place Jetpack power-ups in your game if your character needs it to get to high places.
- Test out your new rooms each time you finish your design to make sure your character can get through it.
- The harder your build your rooms, the more health power-ups your character will need.

Buying other people’s designs off the INFINITY WALL is a great way to build a game faster. You use the coins that you earn playing games (including your games) to buy from the INFINITY WALL. No real money is used in the Bloxels App.

To unlock featured content in the game, you spend GEMS, which can be earned by playing featured games.

In any room, you can go to the CONFIGURE tab and click on the music notes at the bottom of the page. That will let you select the music for the room. You can do this once, and have the same music throughout the game, or choose different music for different rooms.
The INFINITY WALL is a place for publishing your creations and for “buying” designs others have made. You buy things with the coins you earn while playing Bloxels games and from selling your designs on the Infinity Wall—no real money is spent in the Bloxels app. From the Main Menu, click on the INFINITY WALL icon.

This does require WiFi/internet connection. You can enter exact coordinates of a design you want, or you can scroll through the thousands of designs on the wall to find what you want. Tap on a design to see how many coins it costs.

Looking at designs on the Infinity Wall is also a great way to find inspiration for how to create something similar. Generally, larger things (characters, room layouts, game backgrounds) cost more than small things (boards and simple animations).

To buy a game element, click on the coin icon next to the amount of coins it costs. It will automatically add it to your game inventory and deduct the coins. It will not ask you for confirmation, so only click the coin icon if you really want to buy it.

To publish your own designs or completed games, find an empty square on the Infinity Wall and then use the left side panel to select what game or element you want to publish. You will get a pop-up window making sure you really want to publish. You can delete things you’ve published later on if you decide to. Once it is published, the game will tell you its coordinates so you can find it easily later, or share it with your friends.
In Bloxels, brains are what make your enemies have different strengths, abilities, and sizes. Without brains, your enemies aren’t much of a challenge. You must have the Bloxels Gameboard to create brains.

To give an enemy a brain, go into your game, open a room, go to the CONFIGURE tab, and tap on an enemy. (See DESIGN A ROOM, page 4 for more detail.) The menu pictured below will pop up. Tap on the camera icon to take a picture of your gameboard. Up to six brains can be saved to be used later, in the same game. Brains are saved to a specific game.

The image at the right will pop up to confirm it captured your brain correctly. The colors of the blocks matter for designing an enemy brain. Follow this color guide when creating an enemy brain:

- Red = Enemy Damage
- Green = Steal coins from you when they hit you
- Yellow = Give you coins when you destroy them
- Orange = Enemy movement and speed
- Pink = Enemy Health
- Blue = Enemy Size
- Purple = Shoots fireballs
## Bloxels: Builder Icons

### Start Screen

<table>
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<td>Backgrounds</td>
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</table>

### Configure

- Configure your enemies, power-ups, and story blocks
- Choose your hero
- Choose music for your game

### Decorate

- Choose animations or boards to decorate your blocks
- Create a background for a room
- Create a background for your game

### Blocks

- Hazard Block
- Water Block
- Terrain Block
- Coin Block
- Exploding Block
- Power-Up Block
- Enemy Block
- Story Block
- Eraser
- Copy
- Paste