

End Portal Frame

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This article is about the block. For the structure, see [End portal](#).

An **End portal frame** is an [indestructible](#) block, 12 of which form an [End portal](#). Eyes of ender must be [inserted](#) into all 12 empty frames (if not already present upon generation) for the portal to activate and allow passage into the [End dimension](#).

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Obtaining

End Portal Frame

[Empty](#) [Full](#)



Renewable No

Stackable Yes (64)

Tool None

Blast resistance 3,600,000

Hardness -1

Luminous **JE:** Yes (1)
BE: No

Transparent Partial (does not block light)

Waterloggable **JE:** No
BE: Yes

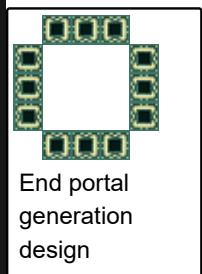
Flammable No

Catches fire from lava No

Map color (JE) 27 COLOR_GREEN

End portal frames, like [bedrock](#), are unobtainable in Survival or Adventure mode. It can be obtained only by accessing the [creative inventory](#) or [commands](#).

Natural generation



12 End portal frames generate naturally to form the [End portal](#) in each [stronghold](#) End portal room, over a pool of [lava](#) with a staircase containing a [silverfish](#) monster spawner. The frames generate in a 5×5 square formation, with 3 frames on each side, without the corners. Each End portal frame generates facing inward, with a 10% chance of containing an [eye of ender](#).

Each stronghold contains an End portal. In [Java Edition](#), each world contains exactly 128 strongholds, so a total of 1,536 End portal frames are generated. In [Bedrock Edition](#), there are infinitely many strongholds in each world, so the number of End portal frames that may generate is also infinite. In [Legacy Console Edition](#), there was only one End portal per world, so 12 End portal frames were generated.

There is an extremely low chance (10^{-12} or 10⁻¹⁰% or one in a trillion) for all twelve End portal frames to be filled in strongholds.

The chart below shows the probability of having each number of eyes of ender filled in (some values may be rounded).

End portal frame generation

Frames filled	Probability		Probability \geq	
0	28.24 %	1 : 3.54	100 %	1 : 1
1	37.66 %	1 : 2.66	71.76 %	1 : 1.39
2	23.01 %	1 : 4.35	34.10 %	1 : 2.93
3	8.52 %	1 : 11.7	11.09 %	1 : 9.02
4	2.13 %	1 : 46.9	2.56 %	1 : 39
5	0.38 %	1 : 264	0.43 %	1 : 231
6	4.91×10^{-4}	1 : 2,036	5.41×10^{-4}	1 : 1,848
7	4.68×10^{-5}	1 : 21,383	5.02×10^{-5}	1 : 19,928
8	3.25×10^{-6}	1 : 307,911	3.41×10^{-6}	1 : 292,952
9	1.60×10^{-7}	1 : 6,235,191	1.66×10^{-7}	1 : 6,030,090
10	5.35×10^{-9}	1 : 187,055,743	5.45×10^{-9}	1 : 183,318,064
11	1.08×10^{-10}	1 : 9,259,259,259	1.09×10^{-10}	1 : 9,174,327,988
12	10^{-12}	1 : 1,000,000,000,000	10^{-12}	1 : 1,000,000,000,000

Calculating the chance for a specific amount of eyes generating is done with the probability mass function:

$$P(X=\text{number of eyes}) = \binom{12}{k} \cdot 0.1^k \cdot (1 - 0.1)^{12-k} \text{ with } k \text{ being the number of eyes.}$$

Usage

Using eyes of ender on End portal frames inserts them to the top of the frame if it is not inserted previously.

An End portal frame has a front face that faces the player when placed. Although the facing is almost invisible (one can distinguish only 2 rotations of End portal frames), all End portal frames must be placed correctly and face inward in order to be able to activate the End portal, and if all of the frames have eyes of ender inserted, the portal activates, replacing the inner 3×3 space with End portal blocks.

If an End portal is built in the End, entities are teleported back to the world spawn point in the Overworld, similar to the exit portal.

Redstone

End portal frames output a redstone comparator signal of 15 when an eye is present. If there is no eye in the frame, it outputs a signal of 0.

Light source

End portals frames emit a light level of 1.

Note blocks

End portals frames can be placed under note blocks to produce "bass drum" sound.

Piston interactivity

End portal frames cannot be pushed by pistons. They also cannot be pushed nor pulled by sticky pistons.

Sounds

Generic

Java Edition:

<input checked="" type="checkbox"/> glass sound type [hide]								
Sound	Closed captions	Source	Description	Identifier	Translation key	Volume	Pitch	Attenuation distance
	Block broken	Blocks	Once the block has broken	block.glass.break	subtitles.block.generic.break	1.0	0.8	16
	Block placed	Blocks	When the block is placed	block.glass.place	subtitles.block.generic.place	1.0	0.8	16
	Block breaking	Blocks	While the block is in the process of being broken	block.glass.hit	subtitles.block.generic.hit	0.25	0.5	16
	Something falls on a block	<i>Entity-Dependent</i>	Falling on the block with fall damage	block.glass.fall	subtitles.block.generic.fall	0.5	0.75	16
	Footsteps	<i>Entity-Dependent</i>	Walking on the block	block.glass.step	subtitles.block.generic.footsteps	0.15	1.0	16

Bedrock Edition:

<input checked="" type="checkbox"/> glass sound type [hide]								
Sound	Closed captions [upcoming: BE 26.0]	Source	Description	Identifier	Translation key [upcoming: BE 26.0]	Volume	Pitch	
	?	Blocks	Once the block has broken	random.glass	?	1.0	0.8-1.0	
	?	Blocks	When the block is placed	dig.stone	?	1.0	0.8-1.0	
	?	Blocks	While the block is in the process of being broken	hit.stone	?	0.4	0.6	
	?	Players	Falling on the block with fall damage	fall.stone	?	0.4	1.0	
	?	Players	Walking on the block	step.stone	?	0.3	1.0	
	?	Blocks	Jumping from the block	jump.stone	?	0.12	1.0	
	?	Blocks	Falling on the block without fall damage	land.stone	?	0.22	1.0	

Unique**Java Edition:**

Sounds [hide]								
Sound	Closed captions	Source	Description	Identifier	Translation key	Volume	Pitch	Attenuation distance
	Eye of Ender attaches	Blocks	When an eye of ender is placed in an End portal frame	block.end_portal_frame.fill	subtitles.block.end_portal_frame.fill	1.0	1.0	16

Bedrock Edition:

Sounds [hide]								
Sound	Closed captions [upcoming: BE 26.0]	Source	Description	Identifier	Translation key [upcoming: BE 26.0]	Volume	Pitch	
	?	Blocks	When an eye of ender is placed in an End portal frame	block.end_portal_frame.fill	?	0.3	varies [sound 1]	

1. Can be 1.0, 0.9, or 1.1

Data values

ID

Java Edition:

Name	Identifier	Form	Block tags	Translation key [hide]
 End Portal Frame	end_portal_frame	Block & Item	dragon_imune wither_imune	block.minecraft.end_portal_frame

Bedrock Edition:

Name	Identifier	Numeric ID	Form	Item ID ^[i 1]	Translation key [hide]
 End Portal Frame	end_portal_frame	120	Block & Giveable Item ^[i 2]	Identical ^[i 3]	tile.end_portal_frame.name

1. ID of block's direct item form, which is used in savegame files and addons.
2. Available with `/give` command.
3. The block's direct item form has the same ID as the block.

Block states

See also: [Block states](#)

Java Edition:

Name	Default value	Allowed values	Description	[hide]
eye	false	false true	If true, the portal frame block contains an eye of ender .	
facing	north	east north south west	The direction of the end portal frame block. The opposite from the direction the player faces while placing the block. In order to activate a portal, all 12 blocks must be facing inward; for example, the northern three blocks must all face south.	

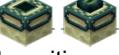
Bedrock Edition:

Name	Metadata Bits	Default value	Allowed values	Values for Metadata Bits	Description	[hide]
<code>end_portal_eye_bit</code>	0x4	false	false true	0 1	If the portal frame block contains an eye of ender .	
<code>minecraft:cardinal_direction</code>	Not Supported	south	east north south west	Unsupported	The direction of the end portal frame block. The opposite from the direction the player faces while placing the block. In order to activate a portal, all 12 blocks must be facing inward; for example, the northern three blocks must all face south.	

History

There is an associated page listing all historical changes related to the appearance and/or sounds associated with this block in further detail than below; see [/Asset history](#).

Java Edition

Java Edition		
[hide]		
1.0.0	Beta 1.9 Prerelease 3	 Added End portal frames. Frames have a cross model and filled End portal frames have a cube model; both have a full cube hitbox. The block emits a light at level 15. It can drop as an item due to explosions.
		 The item form of the End portal is a flat texture of the filled frame, and has an empty tooltip.
		This item is one of four given to all players upon world creation or respawning in the pre-reupload.
		 The End portal now has a dark green and yellow texture. The unrepairs version is visually $\frac{13}{16}$ of a block high, and the repaired version sits a full block high with the addition of a $\frac{3}{16}$ -block-high eye of ender in its middle. The End portal now emits its light of level 1. The End portal can no longer be broken by explosions.
1.3.1	12w18a	As a result of singleplayer being changed to an internal server, placing an eye of ender into an end portal frame no longer emits particles.
		The End portal is now available in the Creative inventory and with the pick block option, with the tooltip 'End Portal'.
		 The End portal now renders correctly as an item.
1.6.1	13w18a	The End portal now gives off a redstone signal to redstone comparators based on whether there is an eye of ender in it.
1.8	14w10a	 End portal frames now appear to use the incorrect textures in several places.
	14w10c	 End portals now use the right textures again. ^[1]
1.12	17w17a	Putting an eye of ender in an End portal now plays a ding sound.
1.13	17w47a	"End Portal" has now been renamed to "End Portal Frame".
1.14	18w43a	 The textures of End portal frames have now been changed.
	18w50a	The bottom texture has been changed.
	19w03c	End portal frames now use correct cullface arguments.
	19w14a	Putting an eye of ender into an End portal frame now emits particles again. ^[2]
1.19	22w11a	 The side texture of an End portal frame has been slightly changed, to make better transition with the End stone texture.
1.21.5	25w02a	End portal frames can no longer be destroyed by using bone meal on nearby mushrooms , due to addition of the <code>#replaceable_by_mushrooms</code> block tag.

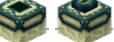
Bedrock Edition

Pocket Edition Alpha			[hide]
v0.9.0	build 1	 Added End portal frames.	
		End portal frames have no collision box, allowing entities to move through them. They are considered a solid block in all other aspects.	
	 The item form of the End portal frame is a flat texture of an unfilled frame, with the tooltip ".name<".		
	build 4	Filled and unfilled End portal frames are now available in the Creative inventory , both with the tooltip "End Portal".	
		End portal frames now have a collision box.	
		End portal frames now render correctly as an item.	
	build 7	The filled End portal frame has been removed from the Creative inventory.	
v0.12.1	build 11	End portals now rotate based on the direction they are placed.	
Pocket Edition			[hide]
1.0.0	alpha 0.17.0.1	Added the End, with some eye of enders filling it up.	
Bedrock Edition			[hide]
1.10.0	beta 1.10.0.3	 The textures of End portals have now been changed.	
1.19.0	beta 1.19.0.20	 The side texture of End portal has been changed.	
1.19.20	Preview 1.19.20.20	Renamed "End Portal" to "End Portal Frame".	
1.20.70	Preview 1.20.70.22	End portal frames have been moved from the "Items" to the "Nature" category in the Creative inventory .	

Legacy Console Edition

Legacy Console Edition								[hide]
Xbox 360	Xbox One	PS3	PS4	PS Vita	Wii U	Switch		
TU7	CU1 TU9 TU19 TU31 TU43 TU46 TU53	CU1	1.00	1.00	1.00	Patch 1 1.0.1 Patch 3 Patch 13 Patch 15 Patch 23	Added End portal frames. They can't be filled with eyes of ender. End portal frames can now be used to access the End. The End portal frame now gives off a redstone signal to redstone comparators based on whether there is an eye of ender in it. End portal frames have been added to the custom superflat block selection menu, alongside all types of logs. Putting an eye of ender into an End portal frame now emits particles. Removed End portal frames from the custom superflat block selection menu. Putting an eye of ender in an End portal now plays a dinging sound.	[verify] The textures of End portal frames have now been changed.
			1.90					

New Nintendo 3DS Edition

New Nintendo 3DS Edition		[hide]
0.1.0		Added End portal frames.

Data history

Java Edition

Java Edition		[hide]
1.13	17w47a	Prior to <i>The Flattening</i> , this block's numeral ID was 120.

Bedrock Edition

Bedrock Edition			[hide]
1.20.30	Preview 1.20.30.20	End portal frames now use the <code>minecraft:cardinal_direction</code> block state instead of <code>facing_direction</code> .	

Issues

Issues relating to "End Portal Frame" are maintained on the [bug tracker](#). Issues should be reported and viewed there (<https://bugs.mojang.com/issues/?jqI=project%20in%20%28MC%2C%20MCPE%29%20AND%20%28resolution%20is%20EMPTY%20OR%20resolution%20in%20%281%2C%202%2C%206%29%20AND%20%28summary%20~%20%22End%20Portal%20Frame%22%29%20ORDER%20BY%20resolution%20DESC%29>).

Trivia

- End portal frames were obtainable and could be placed facing in different directions in the April Fools' snapshot [22w13oneBlockAtATime](#).
- The End stone portion of the End portal frame side texture does not match up with the [End stone](#) block texture.

Gallery

Screenshots



Inactive End portal.

End portal, which had been activated by a player.

Minecart with chest generated on top of an End portal frame, because there is a mineshaft behind the wall.

Beacon beam going through an End portal frame block.

References

1. [MC-50235](#)
2. [MC-10369](#)

External links

- Block of the Week: End Portal Frame (<https://www.minecraft.net/en-us/article/block-week--end-portal-frame>) – Minecraft.net on December 2, 2021

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Loom	Shulker Box (Dyed)	Sign (Hanging)	Smithing Table	
Stonecutter				

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