

Player

This article is about the entity controlled by the real person when playing Minecraft. For the removed passive mob, see [Mob \(entity\)](#). For the removed hostile mob, see [Monster \(entity\)](#). For the fake player in Java Edition, see [Mannequin](#).

A **player** is a unique character whose actions are [controlled](#) by the real person, and not by the game itself. They are the main character in the singleplayer [world](#) of *Minecraft*, where most interactions and mechanics revolve around them as part of the [gameplay](#). They may also partake in the [multiplayer](#) mode with other players, putting more emphasis on player-driven activities.

There are nine default skins for the player, known as [Alex](#), [Ari](#), [Efe](#), [Kai](#), [Makena](#), [Noor](#), [Steve](#), [Sunny](#), and [Zuri](#).

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Player

[Alex](#) [Ari](#) [Efe](#) [Kai](#) [Makena](#) [Noor](#) [Steve](#)
[Sunny](#) [Zuri](#)



[View all renders](#)

Health points 20 (♥ × 10)

Armor points 0 (🛡) ~20 (🛡 × 10)
(Depends on armor)

Behavior Controlled

Fist: 1 (♥)
[until JE Combat Tests]

Attack strength 2 (♥)
[upcoming JE Combat Tests]

Items: Varies

Hitbox size Height: 1.8 blocks
Width: 0.6 blocks

While sneaking:

Height: 1.5 blocks
Width: 0.6 blocks

While gliding/swimming:

Height: 0.6 blocks
Width: 0.6 blocks

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Appearance

A new player can choose from [Steve](#), [Alex](#), [Zuri](#), [Sunny](#), [Noor](#), [Makena](#), [Kai](#), [Efe](#), or [Ari](#) as their main skin. They can also choose the skin from an image file in the [Minecraft Launcher](#)^[JE only] or [Character Creator](#)^[BE only]. They can choose between "classic" and "slim" shapes, which makes their arm models wide or slim.

In [Bedrock Edition](#), the game allows the usage of [skin packs](#), each of which has a selection of free skins. The game also features a [character creation system](#) with free and purchasable apparel and features from the Marketplace. On console devices, these are the only equippable skin models, and players cannot choose custom skin models imported from an image file.

In [Java Edition](#), playing in the [demo](#) or offline makes the game randomly choose any of the nine skins as the current skin.

The player's appearance can be obscured by equipping [armor](#), such as [turtle shell](#), [helmets](#), [chestplates](#), [leggings](#), and [boots](#), as well as other equippable items such as [elytra](#), [carved pumpkin](#), and [heads of mobs](#) and other players. Players are also the only entity capable of having [capes](#), as well as other cosmetics from their [character creation](#).

In [Java Edition](#), if the player is shot with an [arrow](#) or stung by a [bee](#), the arrow or stinger appears physically embedded inside the player for a given time. These do not apply to other mobs.

Unlike their [Java Edition](#) counterparts, [Bedrock Edition](#) players periodically blink; this feature does not apply to custom skin models set from an image file.

Drops

- The content of their [inventory](#) (except the items with [Curse of Vanishing](#))
- Current XP level multiplied by 7, which is then the amount of points dropped. This is capped at 100 XP points, which corresponds to just over level 7.

If `/gamerule keepInventory` has been set to true, nothing is dropped.

Interaction range

While sleeping:	Height: 0.2 blocks Width: 0.2 blocks
Speed	0.10
Spawn	Player spawn point (if set using a bed , a respawn anchor , or commands) Or world spawn

Main article: [Interaction range](#)

A player's interaction range (reach) differs. The area forms a three-dimensional cylinder because it encompasses vertical and horizontal distances:^[1] [needs testing in Java Edition]



The attack reach area of 3 blocks is indicated by a red circle.

Default interaction range

Type	In other game modes	In Creative mode
<i>Java Edition</i> block	4.5 blocks	5 blocks
<i>Java Edition</i> entity	3 blocks	5 blocks
<i>Bedrock Edition</i> block	5 blocks	
<i>Bedrock Edition</i> entity	3 blocks	5 blocks
<i>Bedrock Edition</i> touch	6 blocks	12 blocks

Health and hunger meters

Main articles: [Health](#) and [Damage](#)

The player has 10 full hearts or 20 health points. One full heart represents two [health points](#). When the player's [hunger bar](#) is at 18 (× 9) or higher, health slowly regenerates by 1 () every four seconds, but when it is at 20 (× 10) with saturation remaining, health regenerates by 1 () every half second.^[JE only] The hunger bar depletes faster from energy-intensive activities like [sprinting](#), [jumping](#), attacking [mobs](#), and [mining](#), and it can be refilled by eating [food](#). If the hunger bar is at 17 (× 8.5) or lower, the player does not regenerate health unless in Peaceful [difficulty](#) (or under the effect of certain [potions](#)). While the hunger bar is at 0 (, the player is starving and proceeds to lose health. On Hard and Hardcore difficulties, starvation kills the player. On Normal difficulty, it brings health down to 1 (). On Easy difficulty, it brings health down to 10 (). On Peaceful difficulty, the health bar recovers regardless of hunger, but still depletes from starvation damage, and the hunger bar does not lose any points even when under the effect of hunger.

Movement

See also: [Controls](#) § [Configurable controls](#)

Walking

The most basic movement the player can perform is [walking](#). The player can walk at a reasonable speed rate of 4.317 [blocks](#) per second^[a], all while taking no [hunger](#) impact. This means that the player can walk a total of 5181 [blocks](#)^[b] in [one Minecraft day](#), in a straight line, without sprinting or sneaking.

Sprinting

The player can move faster by [sprinting](#), but at the cost of draining the [hunger](#) bar considerably while doing so. The player sprints approximately 5.612 [blocks](#) per second^[c], as opposed to the regular pace of 4.317 [blocks](#) per second. The maximum distance a player can jump when sprinting is approximately 4.225 [blocks](#). The [Speed](#) effect increases momentum. The player cannot sprint if the hunger bar is at 6 (6) or less. Sprinting is activated by double-tapping the forward key (default , then holding it, or by holding the sprint key (by default, if using a Mac) while pressing the forward key. Holding the sprint key in [Creative mode](#) while [flying](#) causes the player to fly faster.

Sneaking

[Sneaking](#) is a feature activated by pressing and holding the sneak key (default is). Sneaking prevents

players from falling more than half a block, making it highly useful for building horizontally outward over space. Going past the edge of a block and stopping sneaking does not result in falling off that block. The player can still dismount blocks while sneaking by jumping over the block's edge. In [multiplayer](#), a player's name tag is grayed out in [Java Edition](#) or completely disappears in Bedrock Edition when they sneak, to relate to the fact that sneaking makes them harder to see.

Jumping

The maximum height a player can [jump](#) without the [Jump Boost](#) effect is about 1.2522 blocks in Java Edition. The jump height on Bedrock Edition is shorter (similar to the [pre-Combat Update](#)) with the value of 1.24919 blocks.

Swimming

[Swimming](#) occurs when the player is sprinting (by double pressing W or pressing Ctrl/Cmd) while the player is submerged underwater. Swimming has the same animation as crawling.

Crawling

Crawling occurs when the player is in an area less than 1.5 blocks high and prevents suffocation.

1. About 15.5 kph or 9.7 mph, which is a 3:51 kilometer or a 6:12 mile.
2. About 5.2 kilometer.
3. About 20.2 kph or 12.6 mph, which is a 2:58 km or a 4:46 mile.

Movement speed

There isn't a simple hard-coded maximum velocity for walking, sprinting, etc. The maximum is a result of a base acceleration countered by "friction" or air resistance. The base acceleration for walking is 0.098, and sprinting is 30% faster than that. Velocity is increased by this acceleration value every tick (1/20th of a second), then the player is moved by the resulting velocity, then the velocity is multiplied by the friction value of the block they are walking on. For most blocks, the friction value is 0.546. As the player walks forward, each tick their velocity goes $+0.098, *0.546, +0.098, *0.546, +0.098$, and so on. The result is that eventually, the 0.546 multiplier counteracts the 0.098 increase, so the player doesn't go any faster. The formula for this "terminal velocity" is $a/(1-r)$, where a is the acceleration, and r is the block's friction. $0.098/(1-0.546) \approx 0.2159$ meters/tick = 4.317 meters/second. Sprinting is 30% faster than that, at about 5.612 meters/second. Flying is similar, but the base acceleration is 0.049 and the "friction" is 0.91, which comes out to ~10.89 m/s.

Movement Mode	Speed (m/s)	Speed (km/h)	% of Walking Speed
Walking	4.317	15.54	100%
Sprinting	5.612	20.20	130%
Sneaking	1.295	4.663	30%
Flying	10.79	38.85	250%
Sprint Flying	21.58	77.71	500%
Falling	77.71	279.75	1800%

Gameplay HUD

The onscreen [heads-up display](#) (HUD) consists of the player's [health](#) bar, [hunger](#) bar, [experience](#) bar, and [hotbar](#). The [armor](#) rating bar appears above the health bar if the player is wearing armor and the oxygen bar appears if the player is submerged in [water](#) or is suffocating in a block[BE only]. The HUD also contains the crosshair and a held object or fist. The HUD can also be toggled by [F1](#).

As mentioned in the [Game modes](#) section, when the player is in [Creative](#) mode, the health, hunger, experience, armor, and oxygen bars are hidden, and only the hotbar is visible. Despite this, the player can still collect experience and wear armor. The screen tilting animation (the animation for taking damage) still plays when dying from `/kill` or the [void](#). In [Spectator](#) mode, the hotbar, crosshair, and held object/fist are also hidden; in [Java Edition](#), the hotbar appears as a player spectating list when a number is pressed or the mouse wheel is scrolled.

Experience

Main article: [Experience](#)

Experience points (XP) can be gained via [experience orbs](#) when killing mobs or mining certain minerals. The current level is indicated by a green number above the HUD, and the experience points can be used to enchant weapons, tools, or armor with different useful attributes and skills (see [enchanting table](#).) Anvils require experience to use.

The level increases by obtaining enough experience points. All levels and points are lost upon death but can be partially restored by picking up the experience orbs at the place of death.^[2]

Experience is also obtained through activities such as [mining](#), [fishing](#), [mob breeding](#), killing certain [mobs](#), [trading](#), or [smelting](#).

Game modes

Main articles: [Survival](#), [Creative](#), [Hardcore](#), [Adventure](#), and [Spectator](#)

- In Survival mode, the player can place and destroy most blocks, and use all tools available. The player has limited health (icons), hunger (icons), and oxygen (bubble icons)
- In Creative mode, the player can fly by double-tapping the jump key (default `Space`) and place an infinite number of blocks, but with limited use of crafting and tools. No mobs attack the player. The player cannot take damage at all in [Bedrock Edition](#). In [Java Edition](#), the player only takes damage falling into the [void](#) or when killed by `/kill`). The player also has no hunger, has unlimited oxygen, and can [break](#) blocks instantly.
- In Hardcore mode, the player can respawn only in [Spectator](#) mode, and the [difficulty](#) level is locked on Hard mode.
- In Adventure mode, there are no changes from Survival mode aside from being unable to break or place blocks unless they possess a tool with the [can_break](#) item component for that block, or have a block with the [can_place_on](#) component. This game mode can be played only by having [cheats](#) enabled and typing the command `/gamemode adventure`, or by opening a [multiplayer](#) or [LAN](#) world.
- In Spectator mode, the player can spectate almost all [mobs](#), ride them as if the player were in a minecart, fly through blocks, and open inventories, but cannot break blocks or change inventories. Along with [Adventure](#), it can be accessed by typing in `/gamemode spectator`, pressing `F3 + F4` until Spectator mode (the eye of ender) is selected or `F3 + N` while cheats are enabled, or dying in Hardcore mode. However, with the [Debug Mode](#) world type, the gamemode is locked as Spectator mode unless changed with cheats enabled.

Username

Players in-game are referred to by a username. These are used to target the player with [commands](#) and differentiate other players.

In [Java Edition](#), usernames must be 3-16 characters, although there are exceptions for players with under 3 characters, who bought the game early in its development. Players can change their username no more than once every 30 days on [minecraft.net](#). When the player changes their username, the previous username is available for other users to claim after 37 days. Because players can change usernames every 30 days, a player can manage two usernames without anyone being able to take either of them. If the player has a username under 3 characters and changes it, the old sub-3-character username is permanently unable to be obtained again.^[3] This also applies for symbol names.^[4] The username can be changed on the preferences page (<https://minecraft.net/profile>) of [minecraft.net](#).

In *Bedrock Edition*, usernames chosen in-game must be 3-32 characters. Users can choose a username and change it any time in the [Profile](#) settings. Alternatively, users signed in with a [Microsoft account](#) have the username set to match their [Gamertag](#). Gamertags can be changed on the [change gamertag page](#) (<https://social.xbox.com/changegamertag>) in the Xbox website for a fee of US\$9.99, though changing it for the first time is free.^[5]

Player names appear above their head as nameplates, typically in white letters within a dark transparent rectangle. Player nameplates can also be seen through solid blocks and other obstructions, although a player can [sneak](#) to dim the nameplate's visibility when in sight in *Java Edition*, or hide it completely when out of sight in *Bedrock Edition*.

Customization

Main articles: [Skin](#) and [Character Creator](#)

In *Java Edition*, players can change skins in the [preferences page](#) (<https://minecraft.net/profile>) on [minecraft.net](#), or in the [Minecraft Launcher](#) by uploading a [PNG](#) image file. Players also have the option to have wide or slim arms on the character model.

In *Bedrock Edition*, players are given five character slots which they can customize their appearances by selecting pre-made apparels, altering their heights, changing their looks, and more. They are available on the [Character Creator](#) menu, accessible under the [title screen](#) or [pause](#) menu. These characters are synchronized between devices signed-in using [Microsoft account](#). Alternatively, players have option to select from classic skins with [skin packs](#) obtained from the [Marketplace](#). They can select or remove a [cape](#) for classic skins. Classic skins obtained from importing image file are not available on console devices, and cannot be synchronized between devices.

Players can also choose four [emotes](#) per character slot.



The player height options in Bedrock Edition.

Sounds

Java Edition:

Players use the [Players](#) sound category for [entity-dependent sound events](#).

Sounds								[hide]
Sound	Closed captions	Source	Description	Identifier	Translation key	Volume	Pitch	Attenuation distance
	Eating	Players	While a player is eating something	entity.generic.eat	subtitles.entity.generic.eat	varies [sound 1]	0.8-1.2	16
	Sipping	Players	While a player is drinking something	entity.generic.drink	subtitles.entity.generic.drink	0.5	0.9-1.0	16
	Gulping	Players	While a player is drinking a honey bottle	item.honey_bottle.drink	subtitles.item.honey_bottle.drink	0.5	varies [sound 2]	16
	Eating	Friendly Mobs	When a player finishes eating something	entity.generic.eat	subtitles.entity.generic.eat	1.0	0.6-1.4	16
	Burp	Players	When a player finishes eating or drinking	entity.player.burp	subtitles.entity.player.burp	0.5	0.9-1.0	16
	Strong attack	Players	When a player deals an attack that does not trigger any other attack sounds	entity.player.attack.strong	subtitles.entity.player.attack.strong	varies [sound 3]	1.0	16
	Critical attack	Players	When a player deals a critical hit	entity.player.attack.crit	subtitles.entity.player.attack.crit	0.7	1.0	16
	Knockback attack	Players	When a player deals a sprinting attack	entity.player.attack.knockback	subtitles.entity.player.attack.knockback	0.7	1.0	16
	Sweeping attack	Players	When a player deals a sweep attack	entity.player.attack.sweep	subtitles.entity.player.attack.sweep	0.7	1.0	16
	Weak attack	Players	When a player deals an attack with no damage	entity.player.attack.nodamage	subtitles.entity.player.attack.weak	0.7	1.0	16
	Weak attack	Players	When a player attempts to attack without sufficient cooldown	entity.player.attack.weak	subtitles.entity.player.attack.weak	0.7	1.0	16
	Player dings	Players	When a player levels up to a multiple of 5 [sound 4]	entity.player.levelup	subtitles.entity.player.levelup	0.75 [sound 5]	1.0	16

	Player dies	Players	When a player dies	entity.player.death	subtitles.entity.player.death	1.0	0.8-1.2	16
	Player hurts	Players	When a player is damaged from a generic source	entity.player.hurt	subtitles.entity.player.hurt	1.0	0.8-1.2	16
	Player drowning	Players	When a player is damaged by running out of breath	entity.player.hurt_drown	subtitles.entity.player.hurt_drown	1.0	0.8-1.2	16
	Player burns	Players	When a player is damaged by fire	entity.player.hurt_on_fire	subtitles.entity.player.hurt_on_fire	1.0	0.8-1.2	16
	Player freezes	Blocks	When a player is damaged by freezing in powder snow	entity.player.hurt_freeze	subtitles.entity.player.freeze_hurt	1.0	0.8-1.2	16
	Player hurts	Players	When a player is damaged by touching a sweet berry bush	entity.player.hurt_sweet_berry_bush	subtitles.entity.player.hurt	1.0	0.8-1.2	16
	Something trips	Players	When a player falls from 4 to 7 blocks high in Survival or Adventure mode	entity.player.small_fall	subtitles.entity.generic.small_fall	1.0	1.0	16
	Something fell	Players	When a player falls from 8 or more blocks high in Survival or Adventure mode	entity.player.big_fall	subtitles.entity.generic.big_fall	1.0	1.0	16
	Splashing	Players	When a player enters water at low speed [sound 6]	entity.player.splash	subtitles.entity.generic.splash	0.0-0.25 [sound 7]	0.6-1.4	16
	Splashing	Players	When a player enters water at high speed [sound 6]	entity.player.splash_high_speed	subtitles.entity.generic.splash	0.25-1.0 [sound 7]	0.6-1.4	16
	Swimming	Players	While a player is moving through water	entity.player.swim	subtitles.entity.generic.swim	0.0-1.0 [sound 7]	0.6-1.4	16

	Player teleports	Players	When a player teleports using an ender pearl	entity.player.teleport	subtitles .entity .player .teleport	1.0	1.0	16
	<i>None</i> ^[sound 8]	<i>None</i>	<i>Unused sound event</i> ^[sound 9]	entity.player.breath	<i>None</i> ^[sound 8]	<i>None</i>	<i>None</i>	<i>None</i>

1. Can be 0.5, 1.0, or 1.5
2. 0.9-1.0 for drink_honey1 and drink_honey2, 0.315-0.35 for drink_honey3, and 0.675-0.75 for the second copy of drink_honey3
3. 0.6 for strong1 through strong4, and 0.7 for strong5 and strong6
4. And more than five seconds have passed since the last time this sound played
5. Is $\frac{\text{level}}{30} \times 0.75$ When below 30
6. The player's momentum, with the horizontal axes' velocity multiplied by 0.2, compared to 0.25
7. The player's momentum, with the horizontal axes' velocities multiplied by 0.2 (capped at 1.0)
8. No bug reports have been made for this case, however given the resolution of most others the lack of a subtitle is implied to be intentional
9. MC-185414

Bedrock Edition:

Sounds							[hide]
Sound	Closed captions [upcoming: BE 26.0]	Source	Description	Identifier	Translation key [upcoming: BE 26.0]	Volume	Pitch
	?	Players	While a player is eating something	random.eat	?	0.5-1.1	0.8-1.2
	?	Players	While a player is drinking something	random.drink	?	0.35	0.9-1.1
	?	Players	While a player is drinking a honey bottle	random.drink_honey	?	varies[sound 1]	0.9-1.0
	?	Players	When a player finishes eating or drinking	random.burp	?	0.5	0.9-1.0
	?	Players	When a player deals an attack with damage	game.player.attack.strong	?	0.2	0.8-1.2
	?	Players	When a player deals an attack with no damage	game.player.attack.nodamage	?	0.2	0.8-1.2
	?	Players	When a player reaches a level multiple of 5	random.levelup	?	1.0	1.0
	?	Players	When a player dies	game.player.die	?	1.0	0.8-1.2
	?	Players	When a player is damaged from a generic source	game.player.hurt	?	1.0	0.8-1.2
	?	Players	When a player is damaged by running out of breath	mob.player.hurt_drown	?	1.0	1.0
	?	Players	When a player is damaged by fire	mob.player.hurt_on_fire	?	1.0	1.0
	?	Players	When a player is damaged by freezing in powder snow	mob.player.hurt_freeze	?	1.0	1.0
	?	Players	When a player falls from 4 to 7 blocks high in Survival or Adventure mode	damage.fallsmall	?	0.75	1.0
	?	Players	When a player falls from 8 or more blocks high in Survival or Adventure mode	damage.fallbig	?	0.75	1.0
	?	Ambient/Environment	When a player enters water	entity.generic.splash	?	?	0.6-1.4
	?	Players	When the player's eye level goes underwater	ambient.underwater.enter	?	?	1.0
	?	Players	When the player's eye level exits underwater	ambient.underwater.exit	?	?	1.0
	?	Players	While a player is moving through water	random.swim	?	?	0.6-1.4
	?	Players	Unused sound event	random.hurt	?	1.0	1.0

1. 0.5 for drink_honey1 and drink_honey2, but drink_honey3 is 0.175 or 0.375

Data values

ID

Java Edition:

Name	Identifier	Translation key [hide]
 Player	player	entity.minecraft.player

Bedrock Edition:

Name	Identifier	Numeric ID	Family	Translation key [hide]
 Player	player	63	player	entity.player.name

Entity data

Main article: [player.dat format](#)

See also: [Chunk format](#)

Players have entity data associated with them that contain various properties.

The root tag. In level.dat files, this tag is called Player.

Tags common to all entities

– **except for** the tags: CustomName, CustomNameVisible, and Glowing.

Tags common to all mobs

– **except for** the tags: CanPickUpLoot, LeftHanded, PersistenceRequired, Leash, drop_chances.

abilities: The abilities this player has.

flying: 1 or 0 (true/false) - true if the player is currently flying.

flySpeed: The flying speed, set to 0.05.

instabuild: 1 or 0 (true/false) - If true, the player can place blocks without depleting them. This is true for Creative mode, and false for other game modes.

invulnerable: 1 or 0 (true/false) - Behavior is not the same as the invulnerable tag on other entities. If true, the player is immune to all damage and harmful effects except for void damage and /kill. Also, all mobs, whether hostile or not, are passive to the player. true when in Creative or Spectator mode, and false when in Survival or Adventure mode.

mayBuild: 1 or 0 (true/false) - If true, the player can place blocks. true when in Creative or Survival mode, and false when in Spectator or Adventure mode.

mayfly: 1 or 0 (true/false) - If true, the player can fly and doesn't take fall damage. true when in Creative and Spectator modes, and false when in Survival and Adventure modes.

walkSpeed: The walking speed, set to 0.1.

current_explosion_impact_pos: Position where the player was when the last explosion happened. Used for wind charge fall damage reduction.

DataVersion: Version of the player NBT structure. Is increased with every new snapshot and release. See [Data version](#).

Dimension: The [ID](#) of the dimension the player is in. Used to store the player's last known location along with Pos.

EnderItems: Each compound tag in this list is an item in the player's 27-slot ender chest inventory. When empty, list type may have [unexpected value](#).

 An item in the inventory.

 Includes the **Slot** tag - slots are numbered 0–26, inclusive.

 See [Item_format § NBT_structure](#).

entered_nether_pos: May not exist. A list of 3 doubles, describing the [Overworld](#) position from which the player entered the [Nether](#). Used by the [nether_travel](#) advancement trigger. Set every time the player passes through a [portal](#) from the Overworld to the Nether. When entering a dimension other than the nether (*not by respawning*) this tag is removed. Entering the Nether without using a portal does not update this tag.

x: The X coordinate in the Overworld.

y: The Y coordinate in the Overworld.

z: The Z coordinate in the Overworld.

foodExhaustionLevel: See [Hunger § Mechanics](#).

foodLevel: The value of the hunger bar. Referred to as **hunger**. See [Hunger](#).

foodSaturationLevel: Referred to as **saturation**. See [Hunger § Mechanics](#).

foodTickTimer: See [Hunger](#).

ignore_fall_damage_from_current_explosion: 1 or 0 (true/false) - true if the current explosion should apply a fall damage reduction. Only used by explosions from [wind charges](#).

Inventory: Each compound tag in this list is an item in the player's inventory. (Note: when empty, list type may have [unexpected value](#).)

An item in the inventory.

See [Item format § NBT structure](#).

LastDeathLocation: May not exist. Location of the player's last death.

dimension: Dimension of last death.

pos: Coordinates of last death.

playerGameType: The current game mode of the player. 0 means [Survival](#), 1 means [Creative](#), 2 means [Adventure](#), and 3 means [Spectator](#).

previousPlayerGameType: The previous game mode of the player.

recipeBook: Contains a JSON object detailing recipes the player has unlocked.

Tags related to the recipe book

RootVehicle: May not exist. The root entity that the player is riding.

Attach: The [UUID](#) of the entity the player is riding, stored as four ints.

Entity: The NBT data of the root vehicle.

See [Entity format](#).

Score: The score displayed upon death.

seenCredits: 1 or 0 (true/false) - true if the player has entered the [exit portal](#) in the [End](#) at least once.

SelectedItem: Data of the item currently being held by the player, excluding the [Slot](#) tag. Only exists when using the /data command, this value is not saved in the player.dat format.

See [item format](#).

SelectedItemSlot: The selected hotbar slot of the player. Values are 0-indexed, so the leftmost slot is 0 and the rightmost slot is 8.

ShoulderEntityLeft: The entity that is on the player's left shoulder. Always displays as a parrot.

See [Entity format](#).

ShoulderEntityRight: The entity that is on the player's right shoulder. Always displays as a parrot.

See [Entity format](#).

SleepTimer: The number of [game ticks](#) the player had been in bed. 0 when the player is not sleeping. When in bed, increases up to 100 ticks, then stops. Skips the night after enough players in beds have reached 100 (see [Bed § Passing the night](#)). When getting out of bed, instantly changes to 100 ticks and then increases for another 9 ticks (up to 109 ticks) before returning to 0 ticks.

respawn: May not exist. The respawn information of the player. Removed when the player attempts to respawn with no valid bed or respawn anchor to spawn at these coordinates. They are unaffected by breaking a bed or respawn anchor at these coordinates, and are unaffected by the player's death.

pos: block position to spawn at

yaw: angle to spawn with (default: 0.0)

dimension: dimension id to spawn in (default minecraft:overworld) (required)

pitch: pitch to spawn with. (required)

forced: true if this spawn was set through commands (default: false)

warden_spawn_tracker: Contains data about the [warden](#) spawning process for this player.

warning_level: A warning level between 0, and 3 (inclusive). The warden spawns at level 3.

cooldown_ticks: The number of game ticks before the [warning_level](#) can be increased again.

Decreases by 1 every tick. It is set to 200 game ticks (10 seconds) every time the warning level is increased.

ticks_since_last_warning: The number of game ticks since the player was warned for warden spawning. Increases by 1 every tick. After 12000 game ticks (10 minutes) it resets to level 3, and the [warning_level](#) decreases by 1 level.

XpLevel: The level shown on the [experience bar](#).

XpP: The progress across the experience bar to the next level, stored as a percentage. [verify]

XpSeed: The seed used for the next enchantment in [enchanting tables](#).

XpTotal: The total amount of experience the player has collected over time; used for the score upon death.

Convert a player name to UUID

Player name

Get UUID



Copy

Offline UUID

ba6309b1-aa7e-301c-9010-23623f1e7



Copy

UUID

3f18b6d4-6de9-4240-b423-743200faa



Copy

Achievements

[hide]

Icon		Achievement	In-game description	Actual requirements (if different)	Gamerscore earned	Trophy type (PS)
PS4	Other					
		<u>Diamonds to you!</u>	Throw diamonds at another player.	Drop a diamond. Another player or a zombie must then pick up this diamond.	15	Bronze
		<u>Time for Stew</u>	Give someone a suspicious stew.	Drop a suspicious stew. Another player must then pick up this suspicious stew.	20	Bronze
		<u>Cheating Death</u>	Use the Totem of Undying to cheat death	Have the totem of undying in your hand when you die.	30	Silver

Achievements that apply to all mobs:

[\[show\]](#)

Advancements

Advancements that apply to all mobs:

[\[show\]](#)

History



This article would benefit from the addition of isometric renders.

Please remove this notice once you have added suitable isometric renders to the article.

The specific instructions are:

Pocket Edition v0.10.0 alpha and Java Edition 24w33a changes

Java Edition

Java Edition pre-Classic		[hide]	
Cave game tech test	The player currently has no visible model. Their hitbox is 1.7 blocks tall.		
<u>rd-132328</u>	 Mobs were added with their skin and model ported from Zombie Town . These are later used for the player.		
Java Edition Classic		[hide]	
<u>0.0.15a (Multiplayer Test 1)</u>	 Added the player model for the newly introduced multiplayer mode . Its model and texture are both taken from the mob. The player's arms flail wildly when walking. [note 1][more information needed]		
<u>August 13, 2009 (https://web.archive.org/web/20210712223819/https://notch.tumblr.com/post/162097136/i-just-realized-theres-room-in-the-player-texture)</u>	 Notch shows a test skin with a hat layer.		
<u>0.24_SURVIVAL_TEST</u>	 The texture was changed.		
<u>0.28</u>	 The texture was changed, once again, removing the beard.		
<u>December 19, 2009 (https://web.archive.org/web/20110302153930/notch.tumblr.com/post/290217078/ive-been-feeling-experimental-lately-her-e-are-my)</u>	Player shadow test.		
<u>December 22, 2009</u>	Notch shows concept art of a new player model, appearing similar to the base "Steve" model, but with a miner hat and different clothes.		
Java Edition Infdev		[hide]	
<u>20100227-1414</u>	Players logged in as Notch now drop an apple upon death.		
<u>20100327</u>	The player now drops their inventory and respawns at the spawn location upon death, rather than having to reload the last save.		
Java Edition Alpha		[hide]	
<u>v1.0.4</u>	The player can jump only two blocks horizontally, instead of three.		
<u>v1.0.6</u>	Held items now appear in third person.		
<u>v1.0.9</u>	The player's arms no longer flail wildly when walking.		
<u>v1.0.15</u>	The player model is made visually smaller when seen in third person; the hitbox is unaffected. Players now have an arm swinging animation when attacking or mining, visible in third person.		
<u>v1.1.1</u>	Added ability to sneak with <input type="button" value="Shift"/> by default.		
Java Edition Beta		[hide]	
<u>1.5</u>	Unarmed damage was increased from 1 (❤) to 2 (❤).		
<u>1.8</u>	Pre-release	The player now has an experience and hunger bar.	
		The player can now jump four blocks horizontally by sprinting.	
	Unarmed damage was decreased from 2 (❤) to 1 (❤).		
Java Edition		[hide]	
<u>1.0.0</u>	<u>RC1</u>	Changed the sounds the player makes. Any physical damage plays a "tick" sound, and damage from falling would play sounds like bones breaking.	

		Before this version, when the player was damaged, they would make a deep "Ooh!" sound that represented the player's response when hurt. However, this sound suggested that the player was male, which was not consistent with/representative of female player skins, so Mojang changed the sound to make it more gender-neutral.
<u>1.3.1</u>	<u>12w18a</u>	Players no longer drop apples when killed while logged in as <u>Notch</u> .
<u>1.4.2</u>	<u>12w38a</u>	As a result of internal changes, players in singleplayer worlds are immune to all damage except void and the <u>/kill</u> command for 3 seconds when spawning, respawning, or joining the world.
<u>1.8</u>	<u>pre1</u>	 Added a new player model with smaller arms, and a new default player skin named Alex.
<u>February 4, 2015</u> (https://twitter.com/KrisJelbring/status/562916800871297024)		Players can now change usernames.
<u>1.9</u>	<u>15w42a</u>	Player's hitbox (usually 1.8 blocks tall) is now shorter (1.65m) when crouching, is a 0.6-block cube when gliding with <u>elytra</u> , and is a 0.2-block cube while laying in bed.
	<u>15w45a</u>	Jump height increased from 1.24919 blocks to 1.2522 blocks.
<u>1.12</u>	<u>17w13a</u>	Players walking backwards now use the same animation as moving forward instead of rotating the model to the side as if they are going sideways.
	<u>18w07a</u>	Added the ability to sprint while in water, which causes the player to dive to the ground and swim much faster.
<u>1.13</u>	<u>18w15a</u>	Sprinting at the surface of water no longer makes the player swim, instead the player stays at the same altitude constantly. Swimming through 1 block holes is now possible. ^[6]
<u>1.14</u>	<u>19w12a</u>	The player's hitbox height while sneaking is now 1.5 blocks instead of 1.65.
	<u>19w14a</u>	The player now <u>crawls</u> when they are in a space less than 1.5 blocks tall.
<u>1.15</u>	<u>19w34a</u>	Fixed the slim model being a half-pixel lower than the torso of the player. This had been an issue since the introduction of the slim skin model in <u>1.8</u> .
<u>August 20, 2022</u> (https://web.archive.org/web/20220821175156/https://twitter.com/JasperBoerstra/status/1561129697857110018)		 New skin textures for Steve and Alex were added in the <u>Minecraft Launcher</u> beta, including classic and slim versions.
<u>1.19.3</u>	<u>22w45a</u>	<p>Integrated player skin now stored separately by wide and slim model.</p> <p> Updated integrated skins of Steve and Alex.</p> <p> Integrated 7 new skins: Ari, Efe, Kai, Makena, Noor, Sunny and Zuri.</p> <p>The 7 new skins can be assigned to offline players now.</p>
<u>1.21.2</u>	<u>24w33a</u>	The slim player model has changed.
	<u>24w34a</u>	The slim player model has been reverted to the pre-24w33a shape. ^[7]
<u>1.21.4</u>	<u>24w45a</u>	Players no longer receive 3 seconds of damage immunity when spawning, respawning, or joining a world or server.

Java Edition Combat Tests[\[hide\]](#)5

Players now get knockback from hits that deal less than half a heart of damage, including no damage.

Bedrock Edition

Pocket Edition Alpha			[hide]
<u>Pre-release</u>		 Added the player.	
v0.8.0	<u>build 1</u>	 The player <u>skin</u> was changed.	
v0.10.0	<u>build 1</u>	The player skin was changed, once again. Removed hole from head bottom.	
v0.11.0	<u>build 1</u>	<p>The player's skin can now be customized.</p>  Added a new player model with smaller arms, and a new default player skin named Alex.	
		 Changed Steve's skin to match <u>Java Edition</u> .	
v0.12.1	<u>build 10</u>	<p>Changed the sounds the player makes. Any physical damage plays a flesh impact sound, and damage from falling would play sounds like bones breaking.</p> <p>Before this version, when the player was damaged, they would make a deep "ooh!" sound that represented the player's response when hurt. However, this sound suggested that the player was male, so Mojang changed the sound to make it more gender-neutral.</p>	
?		Alex's shoulders lowered by half a pixel.	
Bedrock Edition			[hide]
1.2.13	<u>beta</u> <u>1.2.13.8</u>	Added the ability to sprint while in water, which causes the player to dive to the ground and swim much faster.	
1.4.0	<u>beta</u> <u>1.2.20.1</u>	Players can now swim through 1x1 gaps.	
1.5.0	<u>beta</u> <u>1.5.0.0</u>	Improved player swimming at the surface of water.	
1.13.0	<u>beta</u> <u>1.13.0.13</u>	The player left leg no longer slightly bob when the player is idle or looking around.	
	<u>beta</u> <u>1.13.0.15</u>	Player height is now customizable in 4 different sizes in the <u>Character creator</u> : tall, medium, small, smaller, though have the same hitbox. Also, player eyes (Steve, Alex, and custom Character creator skins) can now blink.	
1.14.0	<u>beta</u> <u>1.14.0.1</u>	Players can now sprint on top of <u>water</u> instead of being able to swim.	
1.18.30	<u>beta</u> <u>1.18.30.20</u>	Unarmed damage has been decreased from 2 () to 1 () to match Java Edition.	
1.19.50	<u>Preview</u> <u>1.19.50.21</u>	 Added 7 new skins: Ari, Efe, Kai, Makena, Noor, Sunny and Zuri.	
1.19.70	<u>Preview</u> <u>1.19.70.20</u>	The player's hitbox height now reduces to 1.5 blocks while sneaking.	
1.19.80 Experiment Short Sneak	<u>Preview</u> <u>1.19.80.20</u>	Sneaking is now behind the "Short Sneak" experimental toggle.	

1.20.10 Experiment Short Sneaking and Crawling	Preview 1.20.10.20	The "Short Sneak" experimental toggle has been renamed to "Short Sneaking and Crawling".
1.20.10 Experiment Crawling	Preview 1.20.10.23	Renamed the "Short Sneaking and Crawling" experimental toggle to "Crawling".
1.20.10	Preview 1.20.10.23	Sneaking under 1.5 block gaps is no longer behind experimental gameplay.
1.20.30	Preview 1.20.20.22	Crawling is no longer behind experimental gameplay. Removed the "Crawling" toggle.
1.21.30	Preview 1.21.30.21	When the player enters <u>water</u> , the splashing sound is now changed to match <u>Java Edition</u> .

Legacy Console Edition

Legacy Console Edition							[hide]
Xbox 360	Xbox One	PS3	PS4	PS Vita	Wii U	Switch	
TU1	CU1	1.00	1.00	1.00	Patch 1	1.0.1	 Added the player.
TU3		1.04					Added skin packs.
TU5		1.00					The sound of the player taking damage is changed from a man's grunt to be more gender-neutral.
TU24	CU12	1.16	1.16	1.16	Patch 15	1.0.4	 Added the Alex skin.
TU46	CU36	1.38	1.38	1.38			Player's hitbox (usually 1.8 blocks tall) is now shorter (1.65m) when crouching, is a 0.6-block cube when gliding with <u>elytra</u> , and is a 0.2-block cube while laying in bed.
TU54	CU44	1.52	1.52	1.52	Patch 24	1.0.4	Players walking backwards now use the same animation as moving forward instead of rotating the model to the side as if they are going sideways.
TU69		1.76	1.76	1.76	Patch 38		Changed hurt sounds for player again.

Gallery



The first image of mobs.

First screenshot of a player model with hat layer.

Character concept art for Minecraft by Dock.

Height comparison of the player model before (left) and in/after (right) Java Edition Alpha v1.0.15.

Historical sounds

Sound	Added in	Removed in	Volume	Pitch	Attenuation Distance
Hurt	Java Edition Classic 0.24 SURVIVAL TEST	Java Edition 1.0.0 (RC1) Pocket Edition v0.12.1 alpha (build 10)	1.0	0.8-1.2	16
Hurt flesh			1.0	0.8-1.2	16
Landing from a small fall	Java Edition 1.0.0 (RC1)	Java Edition 1.4.2 (12w38a)	1.0	1.0	16
Landing from a big fall			1.0	1.0	16

Data history

Java Edition [hide]		
1.11	16w32a	Changed entity ID from Player to player.
1.13	17w47a	Numeric IDs for entities were presumably deprecated in this version. [more information needed]
1.21.5	25w06a	The armor and off-hand equipment of players is now also stored in the equipment field.
	25w07a	The SpawnX, SpawnY, SpawnZ, SpawnAngle, SpawnDimension, and SpawnForced fields have been collected into a single respawn field.
1.21.9	Pre-Release 1	The enteredNetherPosition field has been renamed to entered_nether_pos, and is now formatted as a list of doubles.
		angle has been renamed to yaw and is now a required field.
		pitch has been added as a required field.
		dimension is now a required field.

Issues

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

Trivia

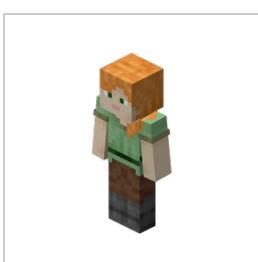
- The original Steve skin and player model was originally created for another one of Notch's games called [Zombie Town](#).
- The player's eye level (according to coordinates on the [debug screen](#)) is 1.62m when standing, 1.27m when sneaking and 0.4m when swimming, crawling or gliding.
- The player's actual size doesn't match the hitbox. Their model is as tall as 2 blocks, but is scaled down by a factor of 0.9375, making them 1.875m tall and 0.9375m wide, exactly 2 texels shorter than the height of 2 blocks.
- The player's legs do not line up perfectly with the torso to prevent z-fighting when wearing armor.^[8]
- In [Bedrock Edition](#), a dead player can still collect [experience orbs](#) near their death location until they choose to respawn.
- Before [Java Edition 1.14](#), the camera was located at the player's feet; the world is therefore rendered 1.8 blocks below what it should be at to counteract this.^[9]
 - Likewise, when the player slept in a bed, the world revolved around the player during the animation instead of the player's camera rotating, which led to some visual bugs.^[10]
- With a length of 3 to 16 characters and 63 characters to choose from, the total number of possible player

usernames in *Java Edition* is $\sum_{n=3}^{16} 63^n \approx 6.257 \times 10^{28}$ or more than 62 octillion.

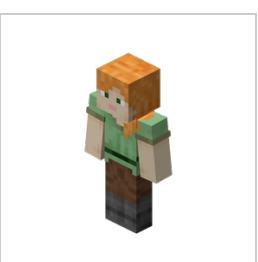
Gallery

Renders

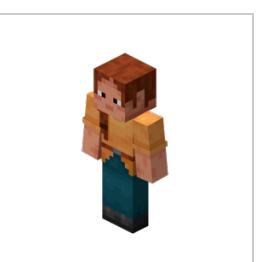
Idle



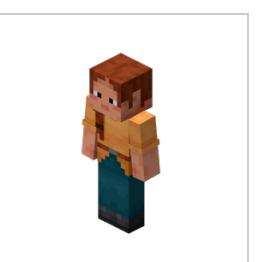
Alex.



Alex with wide arms.



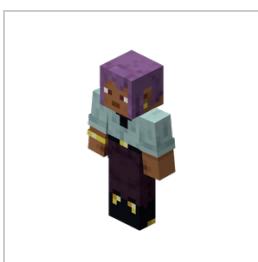
Ari.



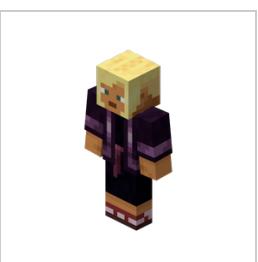
Ari with slim arms.



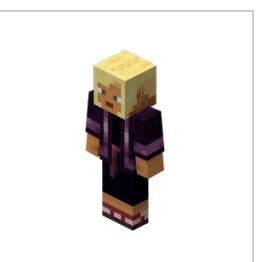
Efe.



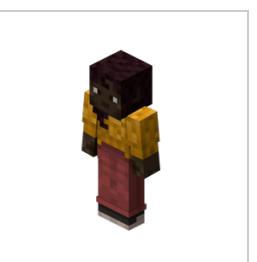
Efe with wide arms.



Kai.



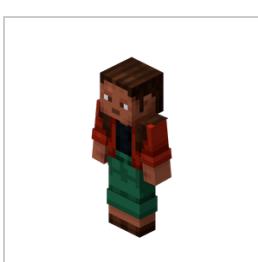
Kai with slim arms.



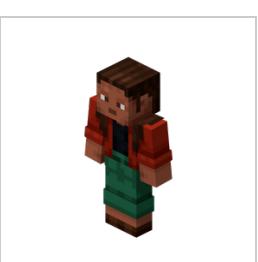
Makena.



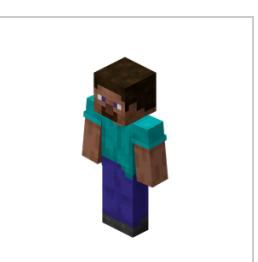
Makena with wide arms.



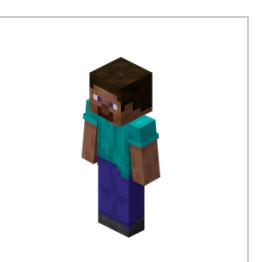
Noor.



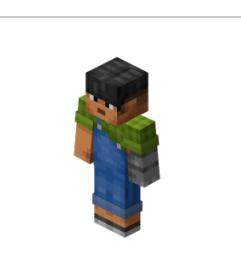
Noor with wide arms.



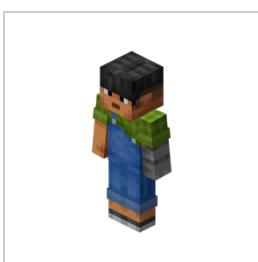
Steve.



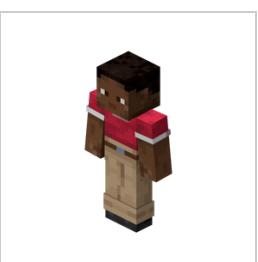
Steve with slim arms.



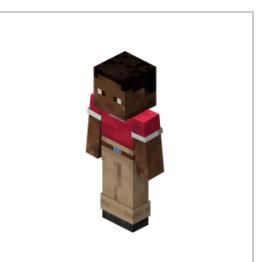
Sunny.



Sunny with slim arms.



Zuri.



Zuri with slim arms.

Animated

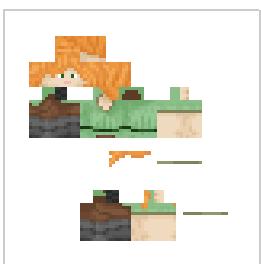


Alex's eyes blinking in
Bedrock Edition.



Steve's eyes blinking
in *Bedrock Edition*.

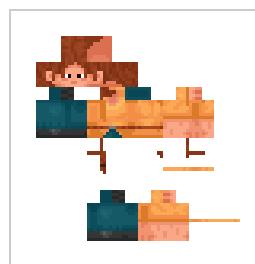
Textures



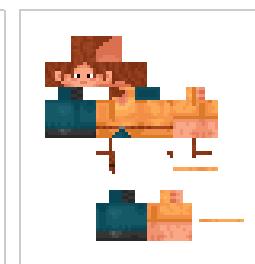
Alex.



Alex with wide arms.



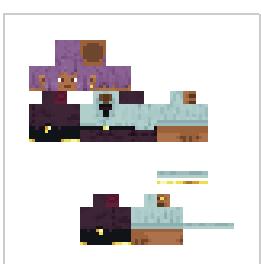
Ari.



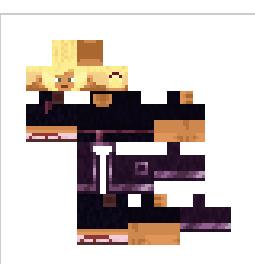
Ari with slim arms.



Efe.



Efe with wide arms.



Kai.



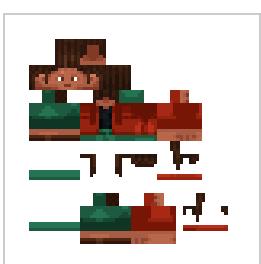
Kai with slim arms.



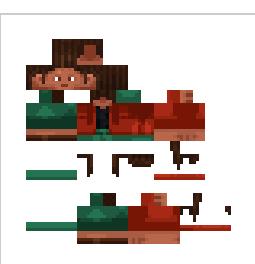
Makena.



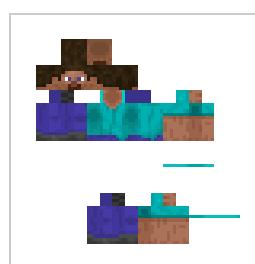
Makena with wide arms.



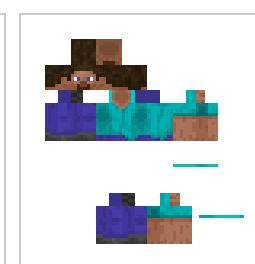
Noor.



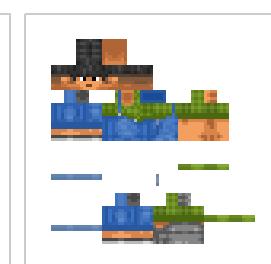
Noor with wide arms.



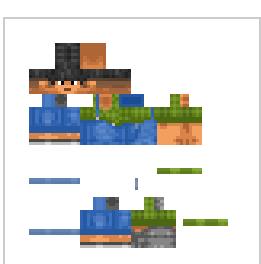
Steve.



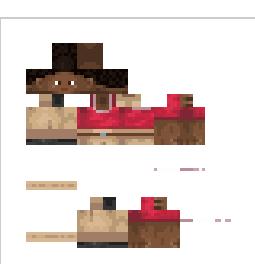
Steve with slim arms.



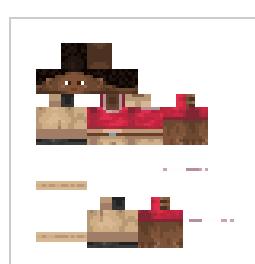
Sunny.



Sunny with slim arms.



Zuri.



Zuri with slim arms.

Screenshots



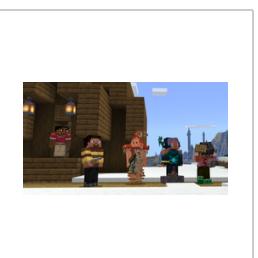
Several players looking at an axolotl.



Ari looks at Efe from afar.



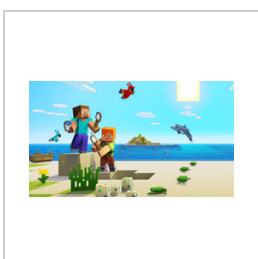
Noor looking at *Prairie Ride*. Unsurprisingly, Noor is seen in the painting.



Five of the default skins customized using the Character Creator.



Players around a campfire.



Steve and Alex at the beach.



Steve and Alex at a village.

See also

- Character
- Mob
- Mob (entity)
- Skin
- Cape
- Cape
- Mob of Me

External links

- "Introducing New Default Minecraft Skins" (<https://www.minecraft.net/en-us/article/introducing-new-default-skins>) by Sophia Dankis – [Minecraft.net](https://www.minecraft.net), October 19, 2022.

Notes

1. Can also be seen in "Zombie Town" (<https://youtube.com/watch?v=9Vmy-ZNbGXE>) by Notch, which features the mob.

References

1. Vertical attack reach forms a cylinder, not a sphere. (<https://web.archive.org/web/20240613063548/https://streamable.com/h2aq7m>)
2. <http://www.pcgamer.com/first-details-on-minecrafts-xp-system-notch-when-you-die-you-lose-all-levels-you-lose-all-xp/>

3. <https://namemc.com/name/NY>
4. <https://namemc.com/search?q=y-93>
5. <https://support.xbox.com/help/account-profile/profile/change-xbox-live-gamertag>
6. MC-125240
7. MC-275473
8. MC-42 — resolved as "Works As Intended".
9. "Today I discovered that our camera is at the players feet - but it's okay, because the world is all rendered about 1.8 blocks down, so it evens out! :D" (<https://twitter.com/Dinnerbone/status/1099982036339748865>) – @Dinnerbone (<https://twitter.com/Dinnerbone>) (Nathan Adams) on X (formerly Twitter), February 25, 2019
10. "Another one: when the player is in a bed and lying down, we don't move the camera to the bed. We just move and rotate the whole world to make it be in front of where the camera was last. _(ツ)_/—" (<https://twitter.com/Dinnerbone/status/1100001119407878150>) – @Dinnerbone (<https://twitter.com/Dinnerbone>) (Nathan Adams) on X (formerly Twitter), February 25, 2019

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