Dispenser

re article feedback

v t e This article is about the block that can fire <u>arrows</u> and other <u>items</u>. For the block that would drop arrows and others as an item, see <u>Dropper</u>.

A **dispenser** is a low-capacity storage <u>block</u> that can fire <u>projectiles</u>, use certain items or tools or place certain blocks, fluids or entities when given a <u>redstone</u> signal. Items that do not have unique dispenser functions are instead ejected <u>into the world</u>.

Dispenser	
View all renders	
Renewable	Yes
Stackable	Yes (64)
Tool	
Blast resistance	3.5
Hardness	3.5
Luminous	No
Transparent	No
Flammable	No
Catches fire from lava	No
Map color (*JE*)	◻ 11 STONE

Contents

Obtaining

Breaking

Dispensers can be mined using a pickaxe, in which case it drops itself and its contents. If mined without a pickaxe, the dispenser drops only its contents.

Block	🗿 **Dispenser**
Hardness	3.5
Tool	⛏
Breaking time (sec)[A]	
Default	17.5
⛏ **Wooden**	2.65
⛏ **Stone**	1.35
⛏ **Copper**	1.05
⛏ **Iron**	0.9
⛏ **Diamond**	0.7
⛏ **Netherite**	0.6
⛏ **Golden**	0.45

Legend

- ☐ incorrect tool, drops nothing

- ☐ correct tool, drops nothing or something other than the block itself

- ☐

⌐⌐ correct tool, drops the block itself
  - *italicized* can be instant mined

1. These durations ignore other influential factors (e.g., Mining Fatigue) and are measured in seconds. For more information, see Breaking § Speed.

Natural generation

Jungle temples

  - Two dispensers are naturally generated in every jungle temple.

Trial chambers

  - Several dispensers can generate inside the trial chambers with random surprises.

Crafting

Ingredients	Crafting recipe	Description	[hide]
Cobblestone + Bow + Redstone Dust		The bow can be of any durability. Enchantments on the bow do not affect the resulting dispenser.	

Usage

A dispenser can be used as a container and as a redstone component that dispenses items when activated, with results varying based on the item dispensed. For example, the trap in a jungle pyramid incorporates arrows inside a dispenser, which shoots the arrows when activated.

To place a dispenser, use it while pointing at a surface adjacent to the space it should occupy. A dispenser can be placed so that its output faces in any direction, including up or down. When placed, a dispenser faces the location of the player placing it.

In *Java Edition*, a dispenser cannot be moved by pistons.
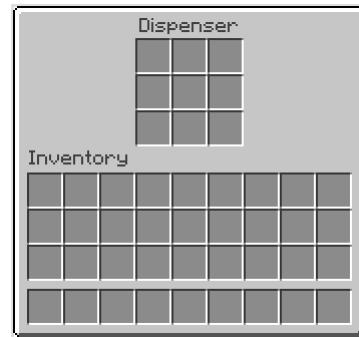

Container

A dispenser has 9 slots of inventory space.

To open the dispenser GUI, use the Use Item control. To move items between the dispenser inventory and the player inventory or hotbar while the dispenser GUI is open, drag or shift-click the items. To exit the dispenser GUI, use the Esc control.

By default, the GUI of a dispenser is labeled "Dispenser". A dispenser's GUI label can be

changed by naming the dispenser in an <u>anvil</u> before placing it, or by using the <u>data</u> command.[*Java Edition only*] For example, to label a dispenser at (0,64,0) "My Dispenser", use `data merge block 0 64 0 {CustomName:'"My Dispenser"'}`.

A dispenser can be "locked" by setting the dispenser's `lock` tag. If a dispenser's `lock` tag is not blank, the dispenser cannot be accessed except by players holding an item that matches the item predicate in the `lock` tag. A dispenser's `lock` tag can be set or unset with the <u>data</u> command. For example, to lock a dispenser at (0,64,0) so that only players holding an item named "My Key" can access the dispenser, use `data merge block 0 64 0 {lock:{components: {"custom_name":"My Key"}}}`.

The GUI of the dispenser.

Redstone component

> *See also: <u>Redstone circuit</u>*

A dispenser can be used to dispense a randomly selected <u>item</u> out of the ones it contains.

Activation

A dispenser is a <u>redstone mechanism</u> and can be activated by:

- an adjacent active **power component**: for example, a <u>redstone torch</u> (except that a redstone torch does not activate a dispenser it is attached to), a <u>block of redstone</u>, a <u>daylight sensor</u>, etc.
- an adjacent <u>powered</u> <u>conductive</u> block (for example, a block with an active redstone torch under it)
- a powered **redstone repeater** or **redstone comparator** facing the dispenser
- powered **redstone dust** configured to point at the dispenser, or on top of it, or a directionless "cross" next to it; a dispenser is *not* activated by adjacent powered redstone dust that is configured to point in another direction.

Some of these methods can *activate* a dispenser (in the sense of triggering an action) without *powering* the dispenser (in the sense of whether the dispenser can power adjacent redstone dust, etc.).

In addition to the methods above, a dispenser can also be activated by <u>quasi-connectivity</u>. [*Java Edition only*] A dispenser becomes activated if one of the methods above *would* activate a mechanism component in the block above the dispenser, even if there is no mechanism component there (even if the block above the dispenser is <u>air</u> or a <u>non-conductive</u> block), but only when the dispenser receives a block update (including a redstone update within two blocks of the dispenser).

A dispenser has a 4 game <u>tick</u> (0.2 seconds, barring lag) delay between activation and a response. During this time, additional inputs are ignored.

In *Bedrock Edition*, the dispenser can only activate on the input/consumer redstone tick (C-tick).

Behavior

When activated, a dispenser waits for 4 game ticks (0.2 seconds, barring lag) and then ejects one item. The dispenser does not continue to eject items while activated; ejection occurs only on the initial activation (the rising edge of an input signal). To eject multiple items, repeatedly activate the dispenser with a clock circuit.

If multiple slots are occupied by items, a random occupied slot is chosen for ejection. The slot is chosen when an item is ejected, not when the dispenser is initially activated; thus it is possible to move items into or out of a dispenser between its activation and item dispensing.

The effects of being activated vary with the type of ejected item. Most items are thrown in the direction the dispenser is facing as if a player had used the Drop Item control. Other items behave differently when dispensed, as described in the table below. In general, a dispenser *cannot* place blocks into the world, aside for a few exceptions, such as shulker boxes, powder snow, and certain cases where the placed block would do something unusual. When a dispenser uses an item that has durability, such as flint and steel and shears, the item's durability decreases.

Unlike a dropper, a dispenser can't push items inside another container.

Dispenser behavior	[hide]
Item	**Effect**
🛡️ Armor 🪽 Elytra	Equips on a player, armor stand, skeleton, wither skeleton, stray, bogged, zombie, husk, pillager, drowned, vindicator, villager[*Java Edition only*][1], piglin or zombified piglin within the block the dispenser is facing with empty appropriate armor slot (any armor, made from any material). In *Java Edition*, zombies can only be equipped if they are capable of picking up items.[2]
🗼 Armor stand	Placed as an entity in the block the dispenser is facing.[*Java Edition only*][3]
🏹 Arrow 🏹 Spectral arrow[*JE only*] 🏹 Tipped arrow	Fired in the direction the dispenser is facing.
🛶 Boat 🛶 Boat with chest	Placed as an entity (i.e., a right-clickable vehicle) in the block the dispenser is facing, if the dispenser is facing the water or an empty block above water — otherwise dropped.[4]
🦴 Bone meal 🦴 Super fertilizer[*BE & edu only*]	Uses bone meal (as fertilizer) or super fertilizer on the block the dispenser is facing, if possible. If the block faced does not react to fertilizers, no bone meal or super fertilizer is used.
🧪 Bottle o' enchanting 🥚 Egg 🔵 Ice bomb[*BE & edu only*] ⚪ Snowball 🧪 Splash potion 🧪 Lingering potion 🌀 Wind charge	Thrown in the direction the dispenser is facing as if the player had right-clicked the item in their inventory. Splash potions and lingering potions are fired farther.
🪣 Bucket	Collects lava or water source block the dispenser is facing, adding the newly filled bucket to an empty slot in the dispenser's inventory. If there isn't room in the dispenser for the newly-filled bucket (i.e. the empty bucket was part of a stack and all other slots in the dispenser are also full), drops the filled bucket. If no source block is in front of the dispenser, drops an empty bucket.[4]
🔴 Fire charge	Launches fireball (as if produced by a blaze) in the direction the dispenser is facing. When a dispensed fireball hits a mob (including a player) or a block, the mob or block is set on fire. When a dispensed fireball hits a boat or minecart, the vehicle is destroyed and drops itself as an item.
🧨 Firework rocket	Launches in the direction the dispenser is facing. It can be used to inflict damage if it was crafted with stars.
🔥 Flint and steel	If the dispenser is facing an air block and having an available block below this air block, places fire in the air block. If the dispenser is facing TNT, it ignites the TNT. If the dispenser is facing an extinguished campfire, the campfire is ignited. Otherwise, does nothing.
🪣 Lava bucket 🪣 Water bucket 🪣 Bucket of cod 🪣 Bucket of salmon 🪣 Bucket of tropical fish 🪣 Bucket of pufferfish 🪣 Bucket of axolotl 🪣 Powder snow bucket	Places lava or water in the block the dispenser is facing (replacing the lava or water bucket in the dispenser with an empty bucket) if the block the dispenser is facing is one that the player could use lava or water buckets on (e.g., air, flowers, grass, etc. — doesn't work with a cauldron[5]) — otherwise the bucket is dropped.[4] Water dispensed in the Nether disappears instantly, leaving only the empty bucket in the dispenser. If the bucket contains an axolotl or fish, the mob is spawned along with the block of water. A dispenser can place or remove powder snow in the block in front of where

Bucket of tadpole	the dispenser is facing.
Minecart Minecart with chest Minecart with command block Minecart with furnace Minecart with hopper Minecart with TNT	Placed as an entity (i.e., a right-clickable vehicle) in the block the dispenser is facing, if the dispenser is facing a type of rails — otherwise dropped.[4]
Heads Carved pumpkin	If placement completes the construction of an iron golem, snow golem, or wither, the entity is created as if constructed by a player. If the difficulty is set to peaceful, dispensers never place wither skeleton skulls. Equips on a player, mob (with exceptions), or armor stand with an empty helmet slot, within the block the dispenser is facing. Otherwise, does nothing. Placement of wither skulls fails under water, even though withers can be manually built under water.
Shulker box	Placed as a block.
Spawn egg	Summons a mob in front of the dispenser.
TNT Underwater TNT[BE & edu only]	Summons a TNT entity in the block the dispenser is facing, with upward motion and a small velocity in a random horizontal direction.
Trident	Thrown in the direction the dispenser is facing.[Bedrock Edition only] [upcoming JE Combat Tests]
Shears	Unleash leashed mobs that is in the block in front of it. Shear any bogged, sheep, snow golem, or mooshroom that is in the block in front of it. Harvests honeycombs from a full beehive or bee nest.
Glass bottle	Fills bottle with water if the dispenser is facing a water source block or with honey if the dispenser is facing a full beehive or bee nest. If there is no room for the newly-filled bottle (i.e. there are no empty slots in the dispenser), drops the filled bottle. If the dispenser is facing anything else, the empty glass bottle is dropped.[4] [6]
Horse armor	Place horse armor on any tamed horse or zombie horse that is in the block in front of it.
Nautilus armor	Place nautilus armor on any tamed nautilus or zombie nautilus that is in the block in front of it.
Saddle	Place a saddle on any pig, strider, camel, camel husk, tamed horse, donkey, mule, zombie horse, skeleton horse,[Java Edition only] nautilus, or zombie nautilus that is in the block in front of it.
Harness	Place a harness on any happy ghast that is in the block in front of it.
Carpet	Place a carpet on any tamed llama that is in the block in front of it.
Chest	Place a chest on any tamed llama, donkey, or mule that is in the block in front of it.
Glowstone	Charges any empty or partially filled respawn anchor. If facing a full respawn anchor, it does nothing.

🔶 Honeycomb	Wax any copper block that is in the block in front of it.
🧴 Water bottle	Turns dirt, coarse dirt, and rooted dirt into mud.
🖌 Brush	Brushes an armadillo in front of the dispenser.
Others	Dropped: Ejected toward the block the dispenser is facing as if a player had used the drop item control.

When a dispenser dispenses an item, it emits a clicking sound (unless the item is a projectile or a spawn egg) and a smoke particle. If it is empty when activated, it emits a slightly higher-pitched click. The noise of a dispenser can be heard up to 16 blocks away.

A dispenser is a conductive block, so powering it directly can cause adjacent mechanism components (including other dispensers) to activate as well.

Sounds

Generic

Java Edition:

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

Bedrock Edition:

	stone sound type						[hide]
Sound	Closed captions [*upcoming: BE 26.0*]	Source	Description	Identifier	Translation key [*upcoming: BE 26.0*]	Volume	Pitch
	Block broken	Blocks	Once the block has broken	dig .stone	subtitles .block.generic .break	1.0	0.8-1.0
	Block broken	Blocks	When the block is placed	dig .stone	subtitles .block.generic .break	1.0	0.8-1.0
	Block breaking	Blocks	While the block is in the process of being broken	hit .stone	subtitles .block.generic .hit	0.37	0.5
	Footsteps	Players	Falling on the block with fall damage	fall .stone	subtitles .block.generic .footsteps	0.4	1.0
	Footsteps	Players	Walking on the block	step .stone	subtitles .block.generic .footsteps	0.3	1.0
	Footsteps	Blocks	Jumping from the block	jump .stone	subtitles .block.generic .footsteps	0.12	1.0
	Footsteps	Blocks	Falling on the block without fall damage	land .stone	subtitles .block.generic .footsteps	0.22	1.0

Unique

Java Edition:

Sounds								[hide]
Sound	**Closed captions**	**Source**	**Description**	**Identifier**	**Translation key**	**Volume**	**Pitch**	**Attenuation distance**
	Dispensed item	Blocks	When a dispenser drops an item	`block .dispenser .dispense`	`subtitles .block .dispenser .dispense`	1.0	1.0	16
	Dispenser fails	Blocks	When a dispenser fails to activate	`block .dispenser .fail`	`subtitles .block .dispenser .fail`	1.0	1.2	16
	Dispensed item [sound 1]	Blocks	When a dispenser shoots	`block .dispenser .launch` [sound 1]	`subtitles .block .dispenser .dispense` [sound 1]	1.0	1.2	16
	Chest locked	Blocks	When a player attempts to open a dispenser locked using the **lock** tag	`block .chest .locked` [sound 1]	`subtitles .block .chest .locked` [sound 1]	1.0	1.0	16

1. MC-98316 — Wrong subtitles caused by missing distinction

Bedrock Edition:

Sounds							[hide]
Sound	**Closed captions** [*upcoming: BE 26.0*]	**Source**	**Description**	**Identifier**	**Translation key** [*upcoming: BE 26.0*]	**Volume**	**Pitch**
	?	Blocks	When a dispenser drops or uses an item	`block .click`	?	1.0	1.0
	?	Blocks	When a dispenser fails to activate	`block .click`	?	1.0	1.2
	?	Players	When a dispenser shoots	`random .bow`	?	1.0	0.83-1.25

Data values

ID

Java Edition:

Name	Identifier	Form	Translation key [hide]
Dispenser	dispenser	Block & Item	block.minecraft.dispenser

Name	Identifier [hide]
Block entity	dispenser

Bedrock Edition:

Name	Identifier	Numeric ID	Form	Item ID[i 1]	Translation key [hide]
Dispenser	dispenser	23	Block & Giveable Item[i 2]	Identical[i 3]	tile.dispenser.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.

Name	Savegame ID [hide]
Block entity	Dispenser

Block states

See also: Block states

Java Edition:

Name	Default value	Allowed values	Description [hide]
facing	north	down east north south up west	The direction in which contents are shot or dropped. The opposite from the direction the player faces while placing the block.
triggered	false	false true	True if this block is activated.

Bedrock Edition:

Name	Metadata Bits	Default value	Allowed values	Values for Metadata Bits	Description	[hide]
facing_direction	0x1 0x2 0x4	0	0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7	The direction in which contents are shot or dropped. ▪ 0: facing down ▪ 1: facing up ▪ 2: facing north ▪ 3: facing south ▪ 4: facing west ▪ 5: facing east	
triggered_bit	0x8	false	false true	0 1	True if this block is activated.	

Block data

A dispenser has a block entity associated with it that holds additional data about the block.

Java Edition:

> See also: *Block entity format*

Block entity data

Tags common to all block entities
Tags common to all objects that can be renamed

⌐ **Items**: List of items in this container.
   └ : An item, including the slot tag. Dispenser slots are numbered 0-8 with 0 in the top left corner.
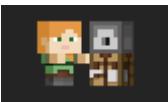
An item

Tags common to all containers that can be locked
Tags common to all objects that use loot tables to produce items

Bedrock Edition:

> See Bedrock Edition level format/Block entity format.

Achievements

						[hide]
Icon		**Achievement**	**In-game description**	**Actual requirements (if different)**	**Gamerscore earned**	**Trophy type (PS)**
PS4	**Other**					
		Dispense With This	Construct a Dispenser.	—	20	Bronze

Videos

History

Development

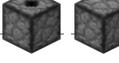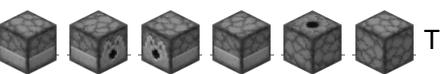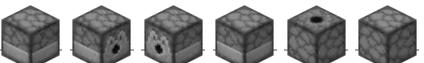|	
January 10, 2011 (https://www.youtube.com/watch?v=cBF2ugTzXqQ&t=181s)	Shown dispenser in development as part of Minecraft: The Story of Mojang.[note 1]
	Currently dispensers dispense items to a fixed distance ~2 blocks away.
January 18, 2013 (https://twitter.com/Dinnerbone/status/292069254017204224)	Dinnerbone stated that dispensers are to have more features in the future, so players should stick to using droppers to dispense items.

Java Edition

Java Edition Beta		[hide]
1.2		Added dispensers.
		The top and bottom textures of dispensers currently remain fixed regardless of the facing direction.
		Dispensers can currently only fire arrows, snowballs, and eggs. All other items are thrown out as entities.

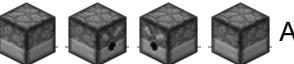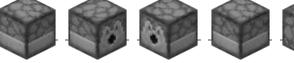| Java Edition			[hide]
1.0.0	Beta 1.9 Prerelease 6	Dispensers now take less time to destroy, and the breaking time is now tier dependent.	
1.2.1	12w03a	Dispensers can spawn mobs from a spawn egg.	
	12w04a	The texture of dispensers has been changed.	
		Dispensers can shoot fire charges and bottles o' enchanting.	
1.3.1	12w15a	Dispensers can place boats and minecarts.	
	12w21a	Dispensers can now place the liquids inside water and lava buckets.	
		Dispensers can now suck up liquids if activated again, filling up the buckets with the liquid dropped.	
	12w22a	Dispensers can naturally generate within jungle temples and are filled with a random amount of arrows that shoot the player should they touch the tripwire connected to it or destroy it without shears.	
1.4.6	12w49a	Dispensers now shoot firework rockets.	
1.5	13w04a	Dispensers can now face all 6 directions.	
		Dispensers use many new items, including TNT, bone meal, flint and steel, and armor.	
	13w10b	Powered dispensers no longer fire if they receive a redstone update.	
1.8	14w04a	Dispensers can be used to place pumpkins to activate iron golems and snow golems.	
		Dispensers can place wither skeleton skulls to activate the wither.	
	14w07a	Dispensers can place command blocks instead of shooting them out.	
	14w10a	Upward-facing dispensers no longer have a model.	
	14w10b	Upward-facing dispensers have a valid model again.[7]	
	14w25a	The models of dispenser have been changed - the top and bottom faces for horizontal dispensers now rotate accordingly, and are rotated for downward-facing.	
1.8.6		Dispensers no longer place command blocks, as it constituted a vulnerability.[8]	

1.9	**15w33a**	Dispensers can shoot splash potions and lingering potions much farther than before.
	15w33c	Dispensers can shoot fire charges as ender dragon fireballs, instead of as blaze fireballs.
	15w39c	Dispensers can equip mob heads and pumpkins.
	15w44b	Dispensers can once again shoot fire charges as blaze fireballs.
1.9.1	**pre1**	Dispensers can use loot tables.
		Dispensers generated in jungle temples use loot tables.
1.10	**16w21a**	Dispensers can equip shields, like armor.
1.11	**16w39a**	Dispensers can place shulker boxes.
	16w39c	Dispensers can dispense boats facing the same way as the dispenser, instead of toward the dispenser.
1.13	**17w47a**	Crafting a dispenser no longer requires the bow to be at full durability.[9]
1.14	**18w43a**	The textures of the dispenser have been changed.
		Dispensers with shears in them now shear sheep with wool.
1.15	**19w34a**	Dispensers can harvest honeycombs when dispensing shears on bee nests and beehives filled with honey.
		Dispensers can collect honey bottles when dispensing glass bottles on beehives.
		Dispensers can collect water bottles when dispensing glass bottles on water.
	19w36a	Fireworks dispensed from a dispenser now travel in the direction fired.
	19w41a	Dispensers now eject empty bottles properly when not facing water.
	19w42a	Dispensers can place armor stands.
1.16	**20w13a**	Dispensers can charge respawn anchors.
	20w15a	Dispensers can saddle pigs, striders, and tamed horses, donkeys, and mules.
		Dispensers can put horse armor on horses.
		Dispensers can put carpets on llamas.
		Dispensers can put chests on llamas, donkeys, and mules.
		Dispensers can shear a mooshroom.
		Dispensers can shear snow golems.
1.17	**20w46a**	Can place powder snow using a powder snow bucket. Also can remove it using a bucket.
	21w11a	Dispensers can dispense honeycomb onto copper blocks to wax them.
1.19	**22w11a**	Dispensers can turn dirt, coarse dirt, and rooted dirt into mud.
	22w13a	Dispensers can place a boat with chest.

1.19.3 — Experiment — Update 1.20	22w42a	Dispensers can saddle camels.
1.20.3 — Experiment — Update 1.21	23w45a	Dispensers now generate in trial chambers.
1.20.5	23w51a	Dispensers can brush armadillos.
1.21	24w18a	Entities shot by dispensers now receive knockback.[10]
1.21.11	pre4	Dispensers can now equip saddles and nautilus armor on tamed nautiluses and zombie nautiluses.

Bedrock Edition

Pocket Edition Alpha			[hide]
v0.14.0	**build 1**	Added dispensers.	
	build 5	The inventory for dispensers is now more consistent with other inventories.	
v0.15.0	**build 1**	Dispensers can be moved by pistons.	
		Dispensers now generate in jungle temples.	

Bedrock Edition			[hide]
1.10.0	**beta 1.10.0.3**	The textures of the dispenser have been changed.	
		Dispensers with shears in them now shear sheep with wool.	
1.13.0	**beta 1.13.0.15**	Damaged bows can no longer be used to craft dispensers.	
1.14.0	**beta 1.14.0.1**	Dispensers can harvest honeycombs when dispensing shears on bee nests and beehives filled with honey.	
		Dispensers can collect honey bottles when dispensing glass bottles on beehives.	
		Dispensers can collect water bottles when dispensing glass bottles on water.	
1.16.0	**beta 1.15.0.51**	Crafting a dispenser no longer requires the bow to be at full durability.	
1.16.210 ── **Experiment** ── **Caves and Cliffs**	**beta 1.16.210.57**	Dispensers can wax copper blocks.	
1.19.60	**Preview 1.19.60.22**	Dispensers can saddle pigs, striders, tamed horses, donkeys, and mules.	
		Dispensers can put horse armor on tamed horses.	
		Dispensers can shear snow golems and mooshrooms.	
		Dispensers can put carpets and chests on llamas.	
		Dispensers with shears now only shear one sheep at a time.	
1.19.60 ── **Experiment** ── **Next Major Update**	**Preview 1.19.60.22**	Dispensers can saddle camels.	
1.20.60 ── **Experiment** ── **Update 1.21**	**Preview 1.20.60.20**	Dispensers now generate in trial chambers.	
1.21.50	**Preview 1.21.50.24**	Dispensers drop themselves only if mined using a pickaxe, matching *Java Edition*.	

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 dispensers.	
TU3							The dispenser texture has been changed to the Java Edition 1.2.1 (12w04a) texture.	
TU5							Added quick move to the dispenser.	
TU9							Dispensers can spawn mobs from a spawn egg.	
							Dispensers can shoot out the liquids inside water and lava buckets.	
							Dispensers can suck up the liquids if activated again, but do not fill up the buckets with the liquid dropped due to a bug.	
TU10							Dispensers can place boats and minecarts.	
TU12							The bug where the liquid from dispensers did not properly fill empty buckets has been fixed.	
TU19	CU7	1.12	1.12	1.12			Dispensers now face in any direction.	
							Dispensers use many new items, including TNT, bone meal, flint and steel, and armor.	
TU31	CU19	1.22	1.22	1.22	Patch 3		Dispensers can place pumpkins or wither skeleton skulls to spawn golems and withers providing the body is already built in a valid configuration.	
TU53	CU43	1.49	1.50	1.49	Patch 23	1.0.3	Dispensers can place shulker boxes.	
TU60	CU51	1.64	1.64	1.64	Patch 30	1.0.11	Fireworks dispensed from a dispenser now travel in the direction fired.	
			1.90				The textures of the dispenser have been changed.	
							Dispensers with shears in them now shear sheep with wool.	

New Nintendo 3DS Edition

New Nintendo 3DS Edition		[hide]
0.1.0	Added dispensers.	

Historical images

Frame from first video of dispensers.

The first image released by Mojang showing the new vertical placement of dispensers and droppers. The dispenser can be seen on the top.

Data history

Java Edition			[hide]
1.8	**14w06a**	Dispensers now use the newly-implemented model json file `models/block/cube.json`; previously the geometry was defined in the game code itself.	
1.11	**16w32a**	The block entity ID for dispensers has been changed from `Trap` to `minecraft:dispenser`.	
1.13	**17w47a**	Prior to *The Flattening*, this block's numeral ID was 23.	

Issues

Issues relating to "Dispenser" 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%22Dispenser%22%29%20ORDER%20BY%20resolution%20DESC).

Trivia

- A dispenser was shown inside a minecart in one of the Java Edition 1.5 teaser images, although this was never added to the game.
- Dispensers resemble a face when not facing up or down.

Gallery

Renders

Java Edition

Facing south

Facing west

Facing north

Facing east

Facing up

Facing down

Bedrock Edition

Facing south

Facing west

Facing north

Facing east

Facing up

Facing down

Screenshots

Dispensers can be placed facing up and down, as well as the side orientation.

A distribution of arrows shot straight up by a dispenser.

See also

Some other blocks can also be used to move items:

- Droppers can throw items or push them into adjacent containers.
- Hoppers can push items into adjacent containers.
- Ice, packed ice, and blue ice have reduced friction to the item entity movement.
- Slime blocks can impart velocity to item entities when pushed by a piston.
- Water can push item entities.
- Quasi-connectivity applies to dispensers.

Notes

1. Supposed time when fragment was filmed. Based on modified date of client.jar/gui/trap.png in Beta 1.2.

References

1. "Villagers cannot be equipped with anything by a dispenser, but that would be a separate issue and a feature request rather than a bug." — Cannot dispense armor or mob heads onto villagers or zombies — resolved as "Cannot Reproduce".
2. MC-190027 — Dispensers can only put armor onto zombies with CanPickUpLoot set to true
3. MCPE-80145
4. MC-114111
5. MC-165196 — resolved as "Invalid".
6. "Minecraft Snapshot 19w42a" (https://www.minecraft.net/en-us/article/minecraft-snapshot-19w42a) – Minecraft.net, October 16, 2019.
7. MC-50259 — resolved as "Fixed".
8. https://bugs.mojang.com/browse/MC-80671?focusedCommentId=228546&page=com.atlassian.jira.plugin.system.issuetabpanels:comment-tabpanel#comment-228546

9. MC-122844 — resolved as "Works As Intended".
10. MC-44280 — Entities don't receive knockback from projectiles fired from dispensers — resolved as "Fixed".

External links

- Block of the Week: Dispenser (https://www.minecraft.net/en-us/article/block-week-dispenser) – Minecraft.net on March 16, 2018

Navigation

◆ **Redstone**		[hide]
Redstone circuits & tutorials		[show]
Redstone components		[hide]

Power emission
Block of Redstone ▪ Buttons (▪ Wooden ▪ Stone ▪ Polished Blackstone) Daylight Detector Detector Rail Jukebox Lectern Lever Lightning Rod Observer Pressure Plates (Wooden Stone Polished Blackstone Light Weighted Heavy Weighted) Redstone Comparator Redstone Torch Sculk Sensor (Calibrated) Target Trapped Chest Tripwire Hook (Tripwire)

Signal transmission
Redstone Wire Redstone Repeater Conductive and non-conductive blocks

Item and entity transportation
Allay Boat with Chest (Bamboo Raft) Copper Golem Crafter Dispenser Dropper Hopper Minecart (with Chest with Furnace with Hopper) Rail (Activator Powered) Water (Bubble Column)

Comparator-readable
Barrel Bee Nest (Hive) Brewing Stand Cake Cauldron Chest (Copper) Chiseled Bookshelf Composter Copper Golem Statue Decorated Pot End Portal Frame Furnace (Blast Smoker) Item Frame (Glow) Respawn Anchor Shulker Box

Observer-related
Redstone Ore (Deepslate) Scaffolding Sculk Catalyst Sculk Shrieker Wall

Pistons/related
Piston (Sticky) Honey Block Slime Block Movable and immovable blocks

Sculk sensor-related
Block of Amethyst Wool (Carpet)

Mechanisms/misc.
Armor Stand Bell Big Dripleaf Copper Bulb Creaking Heart Doors (Copper Iron Wooden) Fence Gate Head Note Block Redstone Lamp Shelf TNT (Minecart) Trapdoors (Copper Iron Wooden)

| **Creative or commands only** | Command Block (Minecart) Minecart with Monster Spawner   Structure Block Test Block |

	Blocks	[hide]
	Structural	[show]
	Ornamental	[show]
	Natural	[show]
	Utility	[hide]

| **Interactable** | Anvil (Chipped Damaged) Barrel Beacon Brewing Stand Cartography Table Chest (Ender Copper) Crafting Table Enchanting Table Furnace (Blast Smoker) Grindstone Lectern Loom Shulker Box (Dyed) Sign (Hanging) Smithing Table Stonecutter |

| **Utilizable** | Banners (Ominous) Beehive Beds Bell Bookshelf Cake (with Candle) Campfire (Soul) Cauldron Chiseled Bookshelf Composter Conduit Copper Golem Statue Decorated Pot End Gateway End Portal End Portal Frame Farmland Fletching Table Flower Pot Frosted Ice Heads (Skeleton Wither Skeleton Zombie Creeper Piglin Dragon) Heavy Core Jukebox Ladder Lodestone Monster Spawner Nether Portal Respawn Anchor Scaffolding Shelf Sponge (Wet) Suspicious Gravel Suspicious Sand TNT Trial Spawner (Ominous) Vault (Ominous) |

| **Redstone/ Mechanical** | Buttons (Wooden Stone Polished Blackstone) Copper Bulb Crafter Daylight Detector Dispenser Dropper Doors (Copper Iron Wooden) Honey Block Hopper Lever Lightning Rod Note Block Observer Piston (Sticky) Pressure Plates (Wooden Stone Polished Blackstone Heavy Weighted Light Weighted) Rail (Activator Detector Powered) Redstone Lamp Redstone Wire (Comparator Repeater Torch) Slime Block Target Trapped Chest Trapdoors (Copper Iron Wooden) Fence Gates Tripwire Hook (Tripwire) |

| **BE & edu only** | Allow Border Chalkboard Compound Creator Deny Element Constructor Heat Block Item Frame (Glow) Lab Table Material Reducer Underwater TNT Underwater Torch |

	Creative or commands only	[show]
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	Unimplemented	[show]
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