

SHADOW CASTER BEHAVIOR

View online: <https://www.construct.net/en/make-games/manuals/construct-3/behavior-reference/shadow-caster>

The **Shadow caster behavior** marks an object as casting a shadow from a **Shadow light** object. For more information, see the documentation for *Shadow light*.

Shadows are cast from the object's collision polygon, if it has one, otherwise its bounding rectangle.

Scripting

When using JavaScript or TypeScript coding, the features of this behavior can be accessed via the `IShadowCasterBehaviorInstance` script interface.

Collision polygon shape

Objects with the *Shadow caster* behavior must use **convex collision polygons**. Shadows will not render correctly if they use concave polygons. If you need a concave shape, this can always be achieved by placing multiple shadow caster objects next to each other to compose a concave shape out of convex parts.

Shadow caster properties

Height

The simulated height of the object, which adjusts the length of shadow it casts. If the *Shadow light* height is less than or equal to the object height, it casts an "infinite" shadow which goes all the way offscreen; if it is higher, it uses the relative heights to calculate how long a shadow to cast. For example two objects with different heights will cast different length shadows.

Tag

A tag for this shadow casting object. A *Shadow light* object also has a tag, and can be set to only cast shadows from shadow casters with the same or different tags to itself. This can be used to have different *Shadow lights* casting shadows off different sets of objects, such as to have shadows working at different levels of Z order.

Enabled

Whether the behavior is initially enabled or disabled. If disabled, the object will not cast a shadow.

Shadow caster conditions

Compare height

Compare the current height property of the behavior to a value.

Is enabled

True if the behavior is currently enabled so it can cast shadows.

Shadow caster actions

Set enabled

Enable or disable the behavior. If disabled, the object will not cast a shadow.

Set height

Set the height property of the behavior. For more information see *Shadow caster properties*.

Set tag

Change the tag of the behavior. For more information see *Shadow caster properties*.

Shadow caster expressions

Height

Return the current height property.

Tag

Return the currently set tag for the behavior.