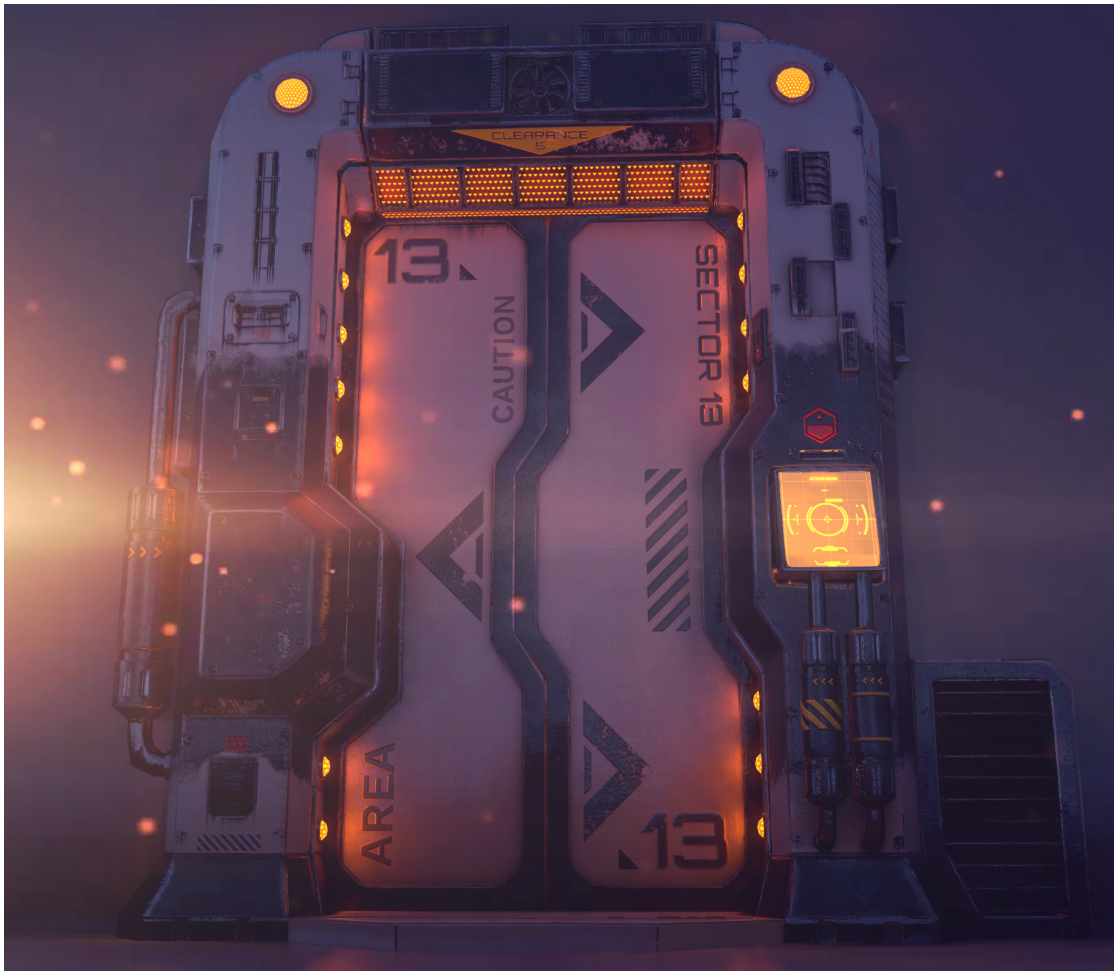
Doors Come to CV2

Arm creators with a Room Door V2 object and CV2 control over room-to-room transitions to make UGC room flow more dynamic and engaging for players.



Goals

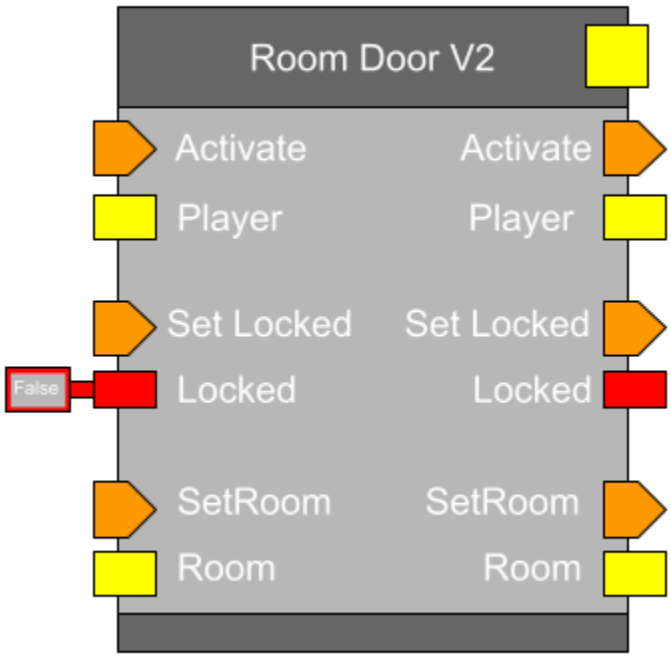
1. Creators build new gameplay by using CV2 to dynamically transition players between rooms.
2. CV2 can control a door's destination during gameplay.
3. Creators can move players to other rooms or subrooms without a door.
4. A powerful CV2 system combined with the inherent importance of doors in creator workflows increases overall CV2 usage.
5. A new Room Door V2 object achieves CV1 parity.
6. The room warning system cannot be bypassed through CV2 or the new room door object.

How it Works

Room Door V2 Object

The new Room Door V2 object exists in the maker pen palette under the “Gadgets” tab and within the “CV2 Gadgets" filter. It uses the same door and door sign mesh as the original Room Door object. If creators want to make custom doors, they could use the proposed *Go To Room* chip in conjunction with the Interaction Volume

Room Door V2 Object Board

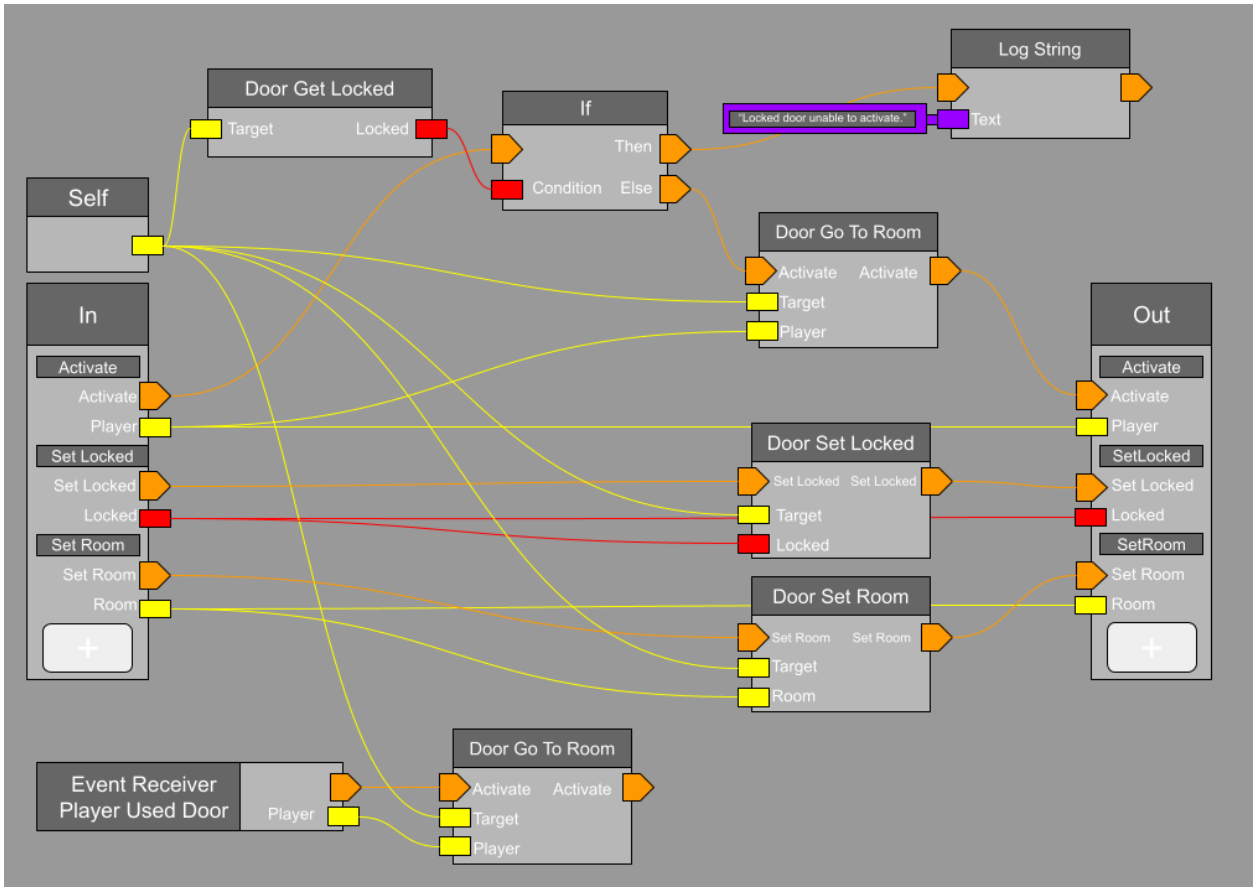


Room Door V2’s object board establishes V1 parity through Activate and lock/unlock functionality. Creators send a player value along with the *Activate* exec to transition players to the door’s destination room. Similarly, creators send a boolean along with a *SetLocked* exec signal to control a door’s lock state.

New in V2, creators can control the door’s destination through circuits. The *SetRoom* exec port uses the *Room* port to define the door destination at runtime. The *Room* port takes advantage of a new room constant chip described further below.

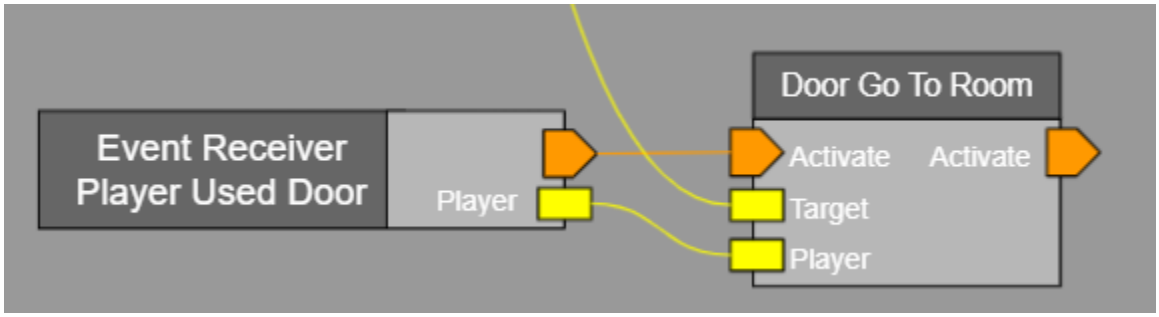
Editing the Object Board

Creators access a host of new functionality when editing the Room Door V2 object board.



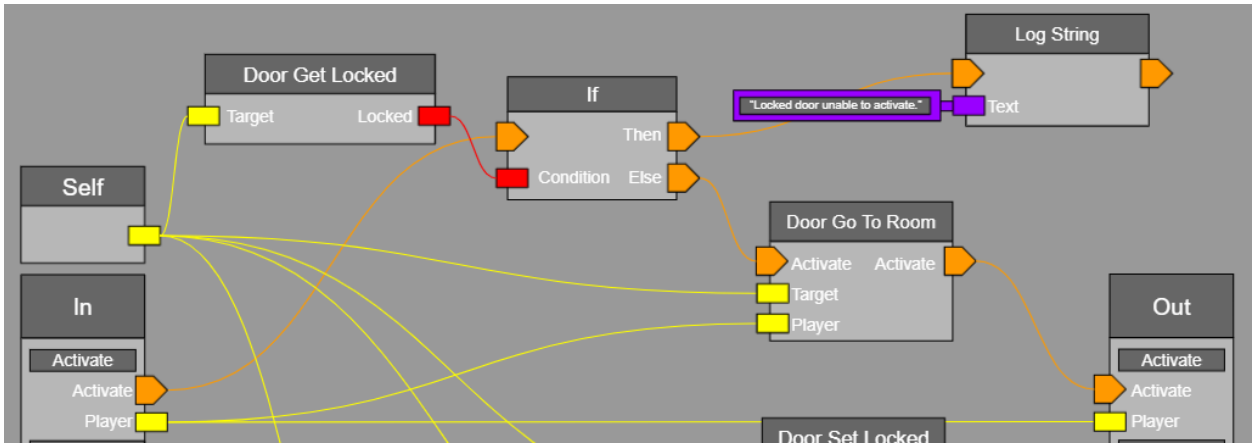
Player Used Door Event Receiver

The *Player Used Door* event fires whenever a player grasps the door. If a door is locked, it cannot be grasped. If the door is not locked, run the *Door Go To Room* chip and send the players to the door's destination room. This event receiver lives only in the object board.



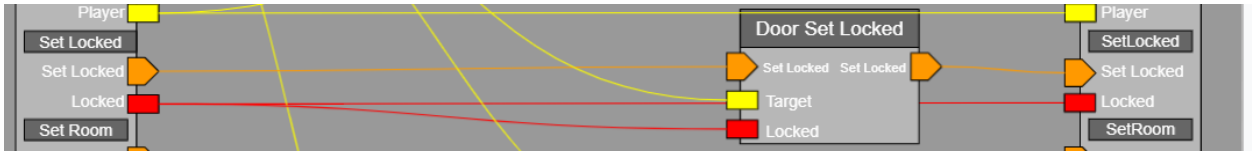
Activate Exec

The *Activate* exec and *Player* inputs run through the *Door Get Locked* and the *Door Go To Room* chip. First the *Door Get Locked* chip returns a boolean for the door to make sure we have the door's current locked state. If the door is not locked the *Door Go To Room* chip then sends the players to the door's destination room. Otherwise send a warning message to the console log.



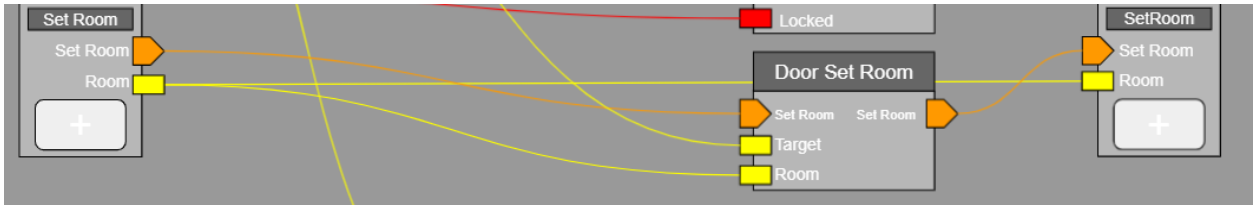
Set Locked Exec

The *Set Locked* exec and *Locked* boolean inputs run through the *Door Set Locked* chip that either locks or unlocks the target door. When the boolean is true the door becomes locked. Locked doors cannot be activated by players either through a physical grasp nor a CV2 activation.



Set Room Exec

The *Set Room* exec and *Room* inputs run through the *Door Set Room* chip that updates the door's destination room as well as the text on the Sign if it is enabled. More on home values, since this updates the configuration menu, and the *Room Constant* chip below.



See the Room Door V2 Chip List for a handy list of all chips.

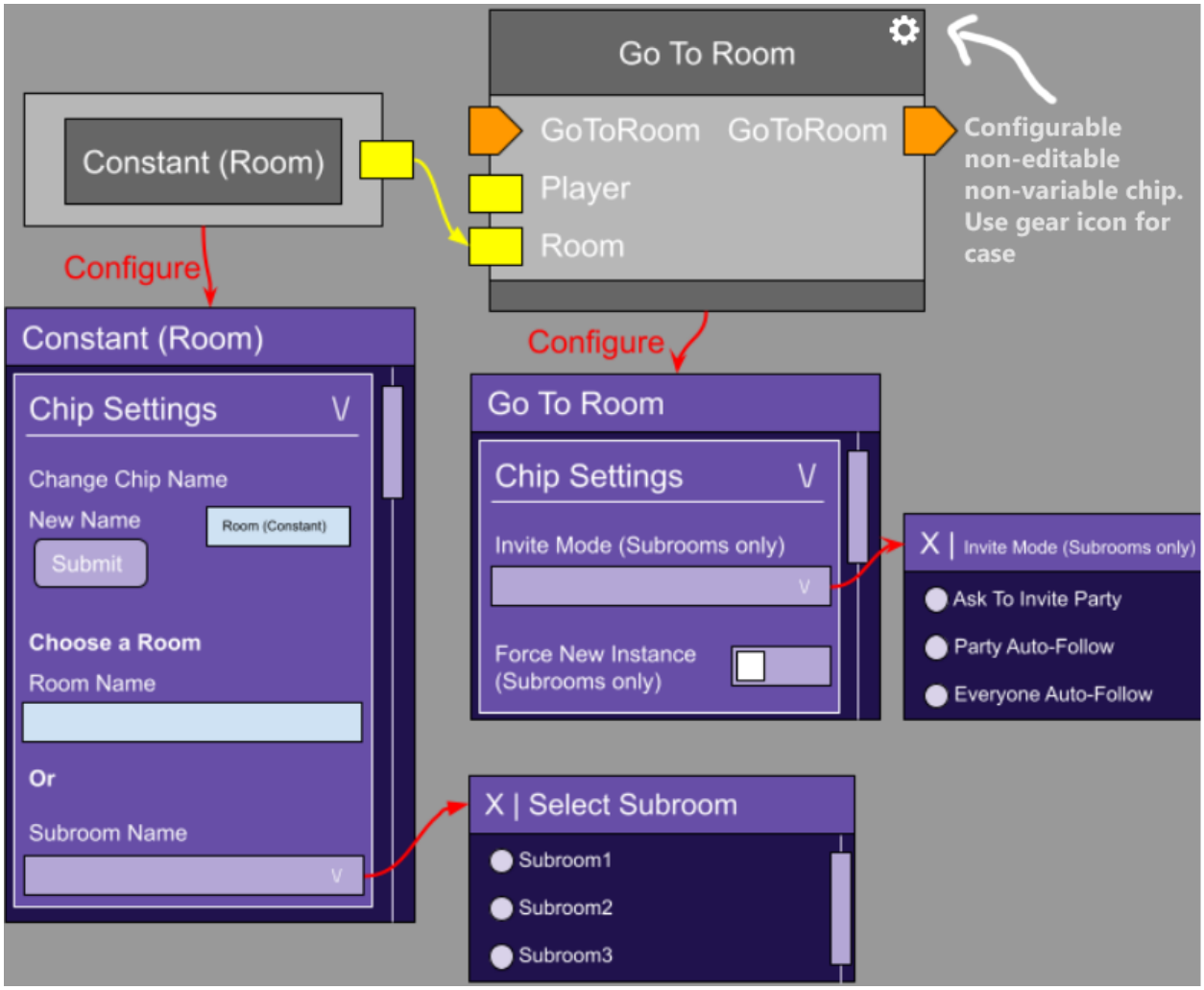
Room Transition; No Door Required

Creators can move players between rooms without doors by using the *Go To Room* and *Constant (Room)* chips. Create a teleport pad on the engineering deck of your spaceship and use CV2 to transition players to different planetary rooms of their own choosing. All with CV2 and no need to hide doors or pay their ink costs.

The *Go To Room* (not to be confused with *Door Go To Room*) chip takes an exec input along with player and room values in order to work. The room value comes from the *Constant (Room)* chip. Configuring this chip allows creators to specify and store a room or subroom and use it with either the *Go To Room* chip or the room door V2 object board. When executed, the *Go To Room* chip loads the target players into the target room.

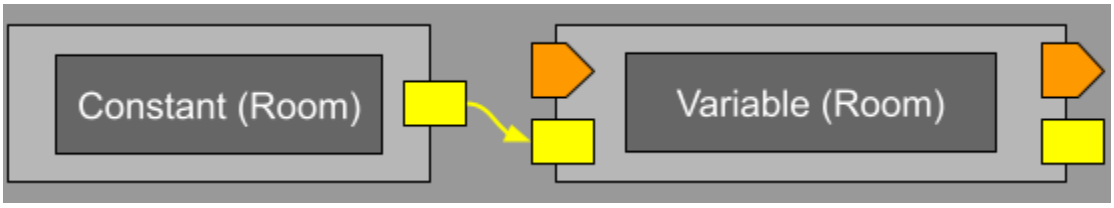
Configuring the *Go To Room* chips allows creators to specify the invite mode and to force new instances for subrooms.

Go To Room and Constant (Room) Chips



The *Constant (Room)* chip is one of the first of its kind. Economy team is also building one for their room consumable system. (Check *ConstantConsumableNode* in-engine for an example.)

Creators can store the value from a *Constant (Room)* chip in a *Variable (Room)* chip to easily use throughout their circuit graphs. The room variable chip cannot be configured but does store the configuration values coming from the constant chip. The *Constant (Room)* chip must respect the Entry Point flow in the door config diagram



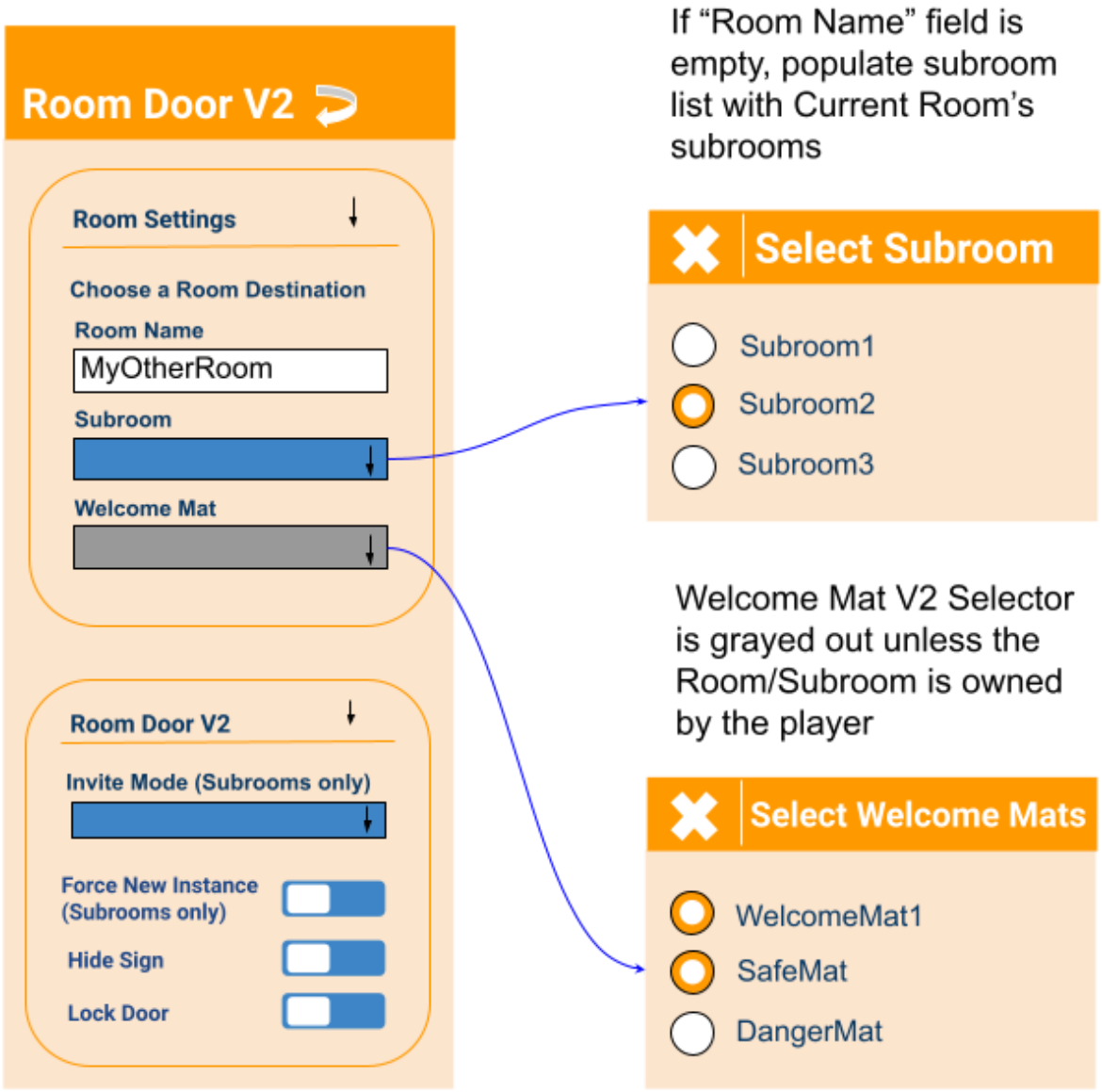
Room Door V2 Configuration

Configuring a Room Door V2 object allows creators to set the home value destination for the door. The location can either be: a subroom of the current room or an entirely different room. The configuration menu incorporates the home values design to make scripted and configured values clearer to the creator.

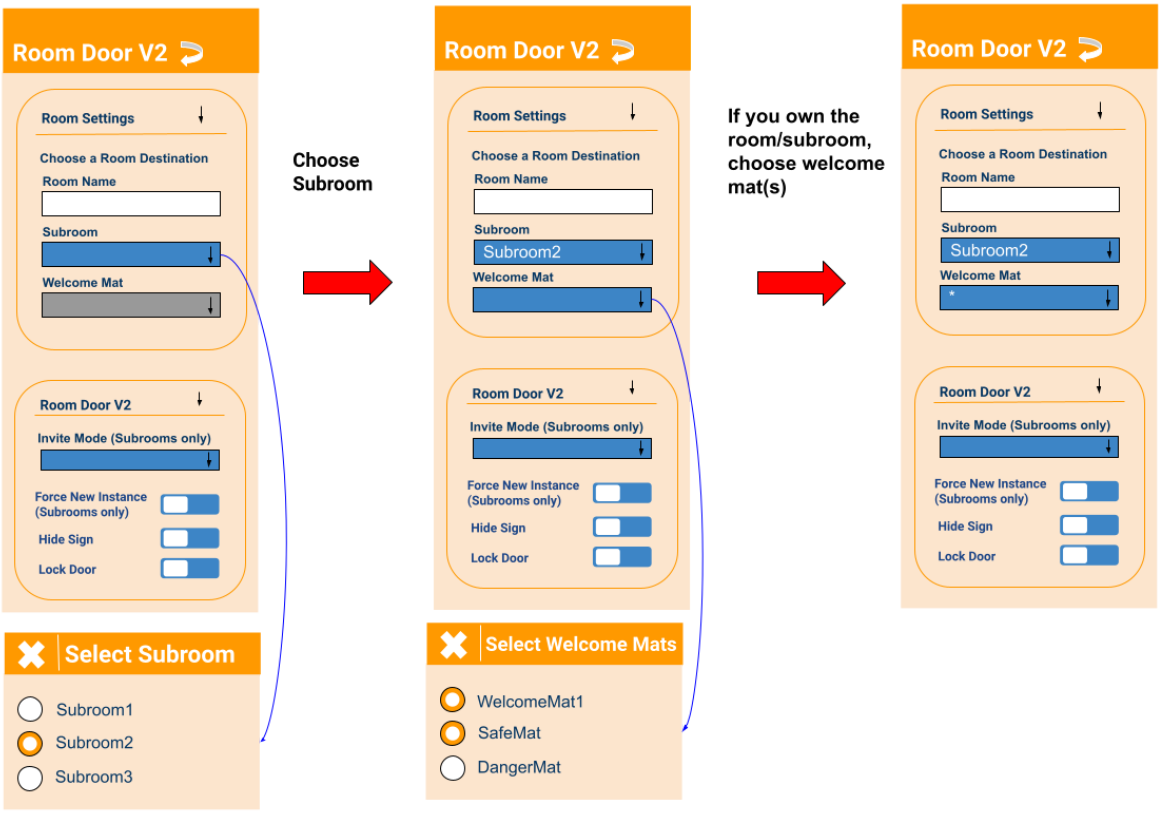
Departures from Room Door V1 Config

- We will add a *Lock Door* toggle to set a Home Value for the door's locked state.
- We will remove the *Hide Door* toggle from Door V1 on the config because it is now irrelevant with our doorless transitions using the new "Go To Room" chip.
- Unlock the power of Welcome Mat V2 by choosing it directly from the Room Settings.

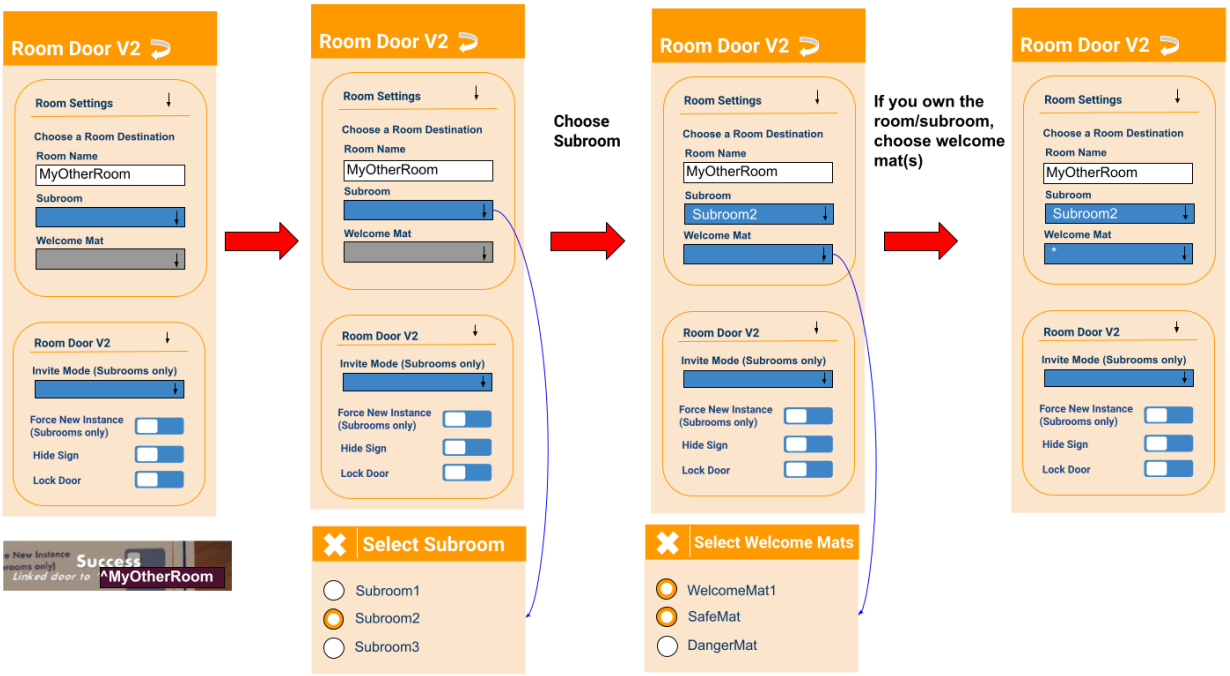
Room Door V2 Configuration Menu



Subroom of Current Room



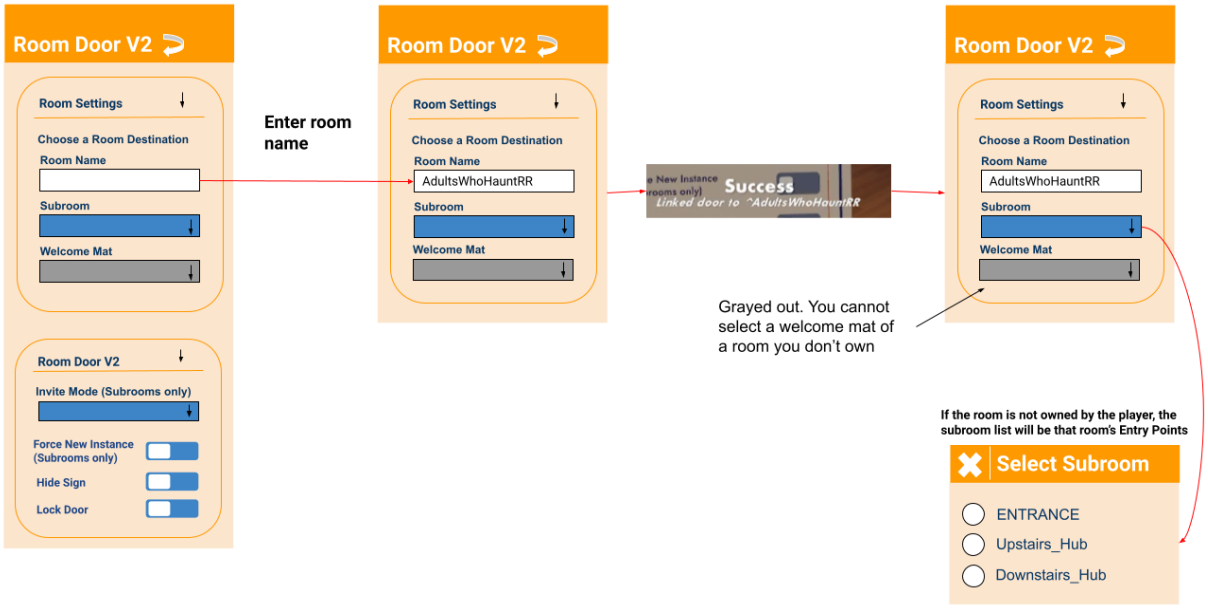
Door To Another Room You Own



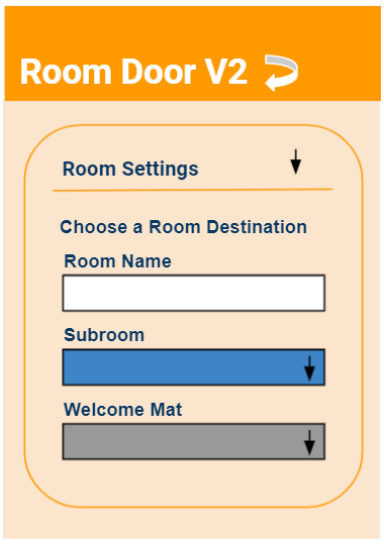
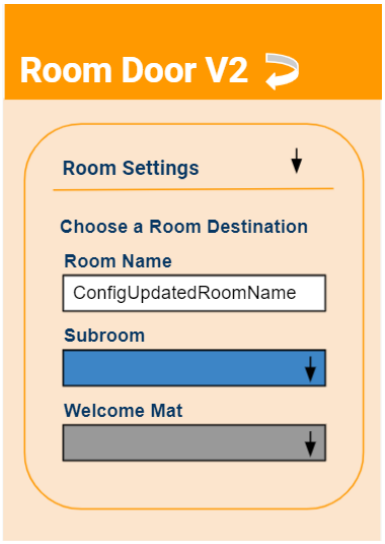
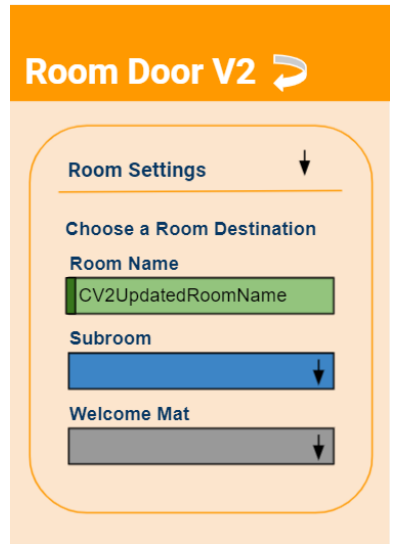
Door To A Room You Don’t Own (And Leveraging Entry Points)

Entry points are public facing subrooms designated by creators which can be chosen as the “first subroom” to experience a Room from. If a creator inputs a valid room they don’t own, then the subroom dropdown will populate with the Entry Points.

Room you don't own



Example of a Home Value updated through CV2

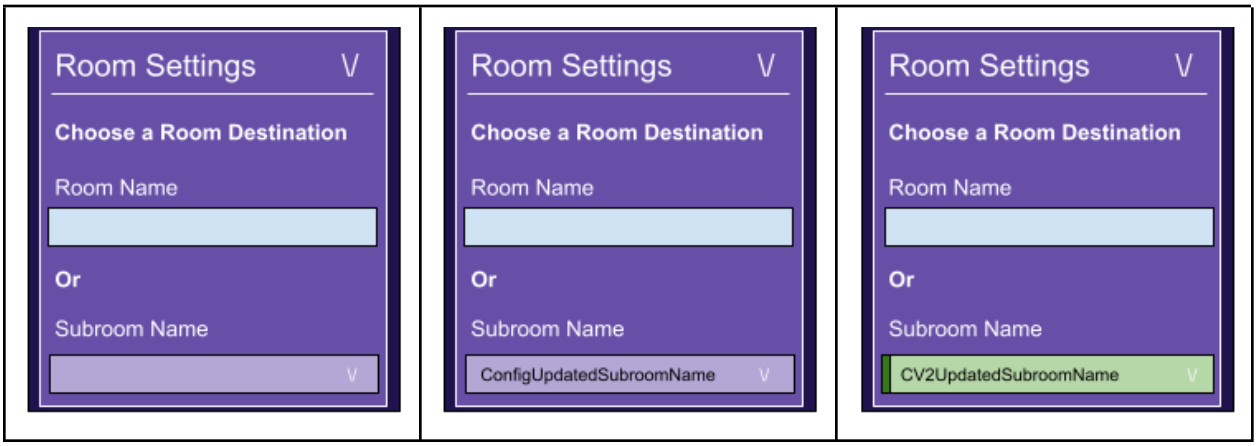
Step 1 *Default Config Menu*	*Step 2* *Config-Updated Room Name*	*Step 3* *CV2-Updated Room Name*
		

1. A creator places a Room Door V2 object and configures it.
2. They enter "ConfigUpdatedRoomName" into the Room Name field.

3. They use a button and a *Constant (Room)* chip to change the room destination to “CV2UpdatedRoomName”. The Room Name field contains the CV2-updated value highlighted green.

The creator can press the reset button at the top of the configuration menu to return the Room Name back to the home value, essentially going from Step 3 to Step 2 in the example above.

Subroom home values work the same way, but note that a room door cannot have both a Room Name and a Subroom Name.



Maintain Trust and Safety

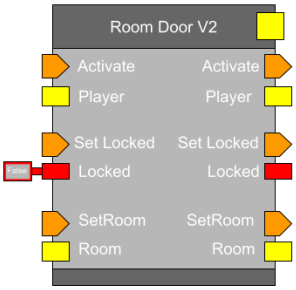
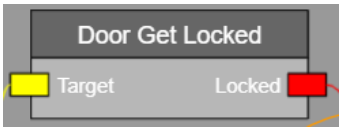
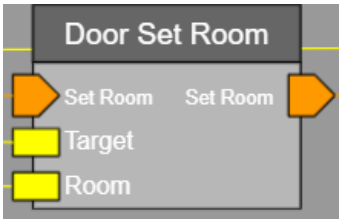
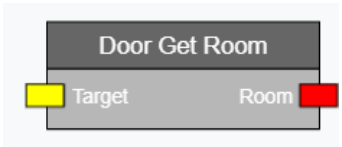
Trust and safety remains critical throughout all the new functionality that enables creators to transition players between rooms with CV2. Room content warnings cannot be bypassed in any way.

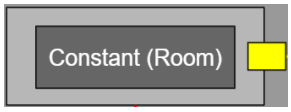
Remove the Room Transition Cooldown Safeguard

There currently exists a safeguard that forces a cooldown on room transitions that was originally intended to prevent players from being infinitely loaded between rooms with no access to their watch. This safeguard has presented issues such as the elevator in Invention Tower breaking. After reaching out to Trust and Safety team, there doesn’t seem to be a clear answer to this being a real threat and while thinking through the scenarios with [REDACTED] to figure out how to effectively troll without the safeguard, there’s nothing beyond “I just won’t go to that person’s room again”.

If this presents a real threat after taking it away, then we can bring it back, but Door V2 is a good time to turn it off.

Door V2 Chip List

Chip	Mockup
Room Door V2 Object Board	
Door Go To Room Non-configurable node that only exists in the control panel of Door V2 and will go to the room defined in the door's configure menu.	
Door Set Locked	
Door Get Locked	
Door Set Room	
Door Get Room	

Event Receiver - Player Used Door	
Go To Room Configurable door agnostic chip that can be used by creators to achieve Door functionality without the door gadget.	
Constant (Room) Configurable chip that follows the paradigms of the “Room Settings” subheader of the Door’s config menu.	
Variable (Room)	