

# Sorting v2.0

## Documentation

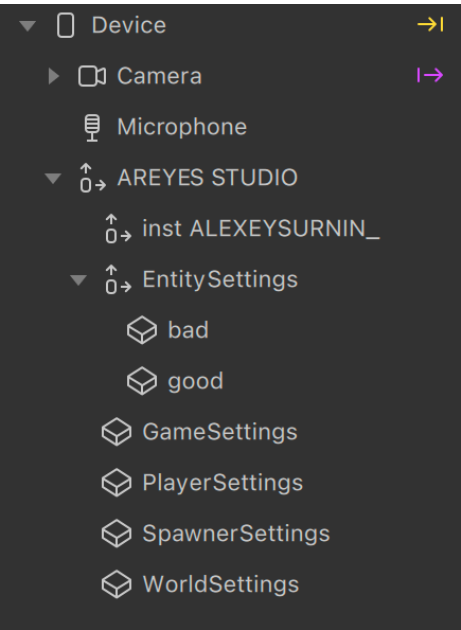
Last update: 16.03.2021

# Content

1. [Settings](#)
  - a. [WorldSettings](#)
  - b. [GameSettings](#)
  - c. [SpawnerSettings](#)
  - d. [PlayerSettings](#)
2. [Entity System](#)
  - a. [Creation](#)
  - b. [Entity Settings](#)
  - c. [Custom path](#)
  - d. [Events](#)
3. [Global Variables](#)
  - a. [Player Data](#)
4. [Global Methods](#)
5. [Instructions](#)
6. [Audio](#)
7. [Q&A](#)

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# Settings



You can customize this template via patches and **blocks**.

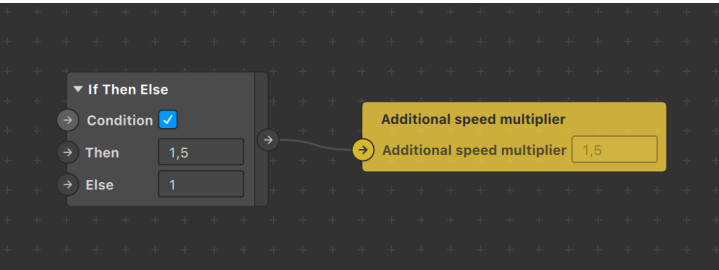
To tweak something global, such as controls or loading, use blocks under AREYES folder.

## WorldSettings

This block is for setting the game speed

|                             |   |
|-----------------------------|---|
| Start Speed                 | Starting speed of the game. Updated after launching the game          |
| Speed Multiplier            | Speed multiplier which will be multiplied once per interval           |
| Speed Multiply Interval     | -   |
| Additional Speed Multiplier | An additional multiplier, use for bonuses or a sharp change in speed. |
| Max Speed                   | -   |

To change an additional speed multiplier, use only **If Then Else**. Do not use animations or Exp Smooth, **this will affect performance**



## GameSettings

This block is for setting the timer after which the game ends

|       |                  |
|-------|------------------|
| Timer | Time value in ms |
|-------|------------------|

# SpawnerSettings

This block is for setting the coordinates of the spawn and despawn of objects

|   |   |
|---|---|
| Y | The start and end position of the entity along the Y axis |
|---|---|

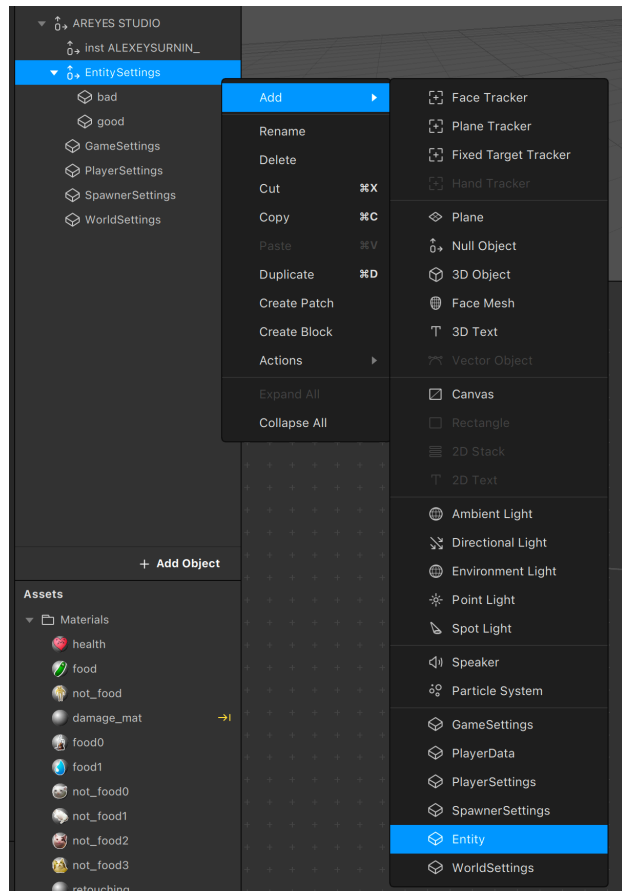
# PlayerSettings

This block is for player customization

|                        |  |
|------------------------|--|
| Max players            | Maximum number of players. Maximum 5             |
| Max health             | Maximum and starting amount of player health     |
| View colliders         | Enable visibility of colliders. For easy sizing  |
| Collider size          | Player collider dimensions                       |
| Movement range X       | Range of motion                                  |
| Controller smoothing   | Exponential smoothing factor for object movement |
| Sensitivity Controller | Sensitivity of movement. 0 to 1                  |

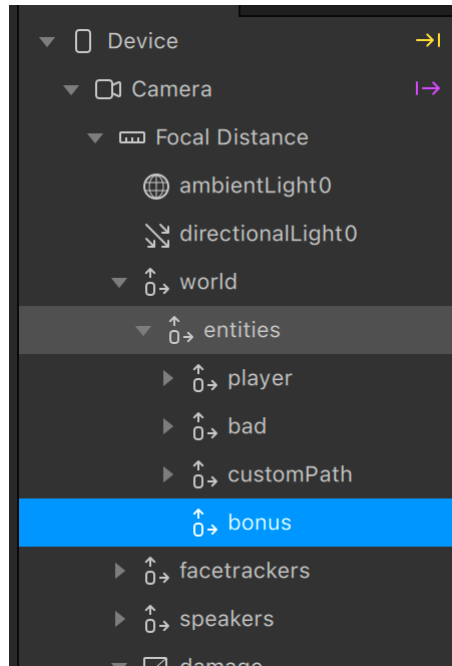
# Entity system

## Creation



Step 1. Press Right-Mouse Button on “Entity Settings” object, go Add and choose “Entity” from the end of the list.

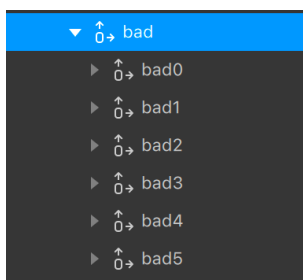
Step 2. Name this object uniquely, i. e. “bonus”.



Step 3. Create new nullObject inside entities folder and name it same. This object will be parent for all entities inside and will define their logic. **These entities are called instances of “bonus” type.**

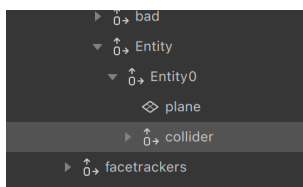
Step 4. Create new nullObject inside “bonus” and name it uniquely, i. e. “bonus0”

Step 5. Then add new plane or 3D mesh inside “bonus0” object.



You’ve created “bonus” entity type with **one** instance inside. The more instances of entity type you have, the more entities of this type can be spawn during the game. This means that now you will see only one “bonus” during the game.

To fix this, just duplicate “bonus0” object a few times using “Ctrl+D” shortcut. It is recommended to have at least 10 instances of each entity type, but this depends on Spawn Chance setting.

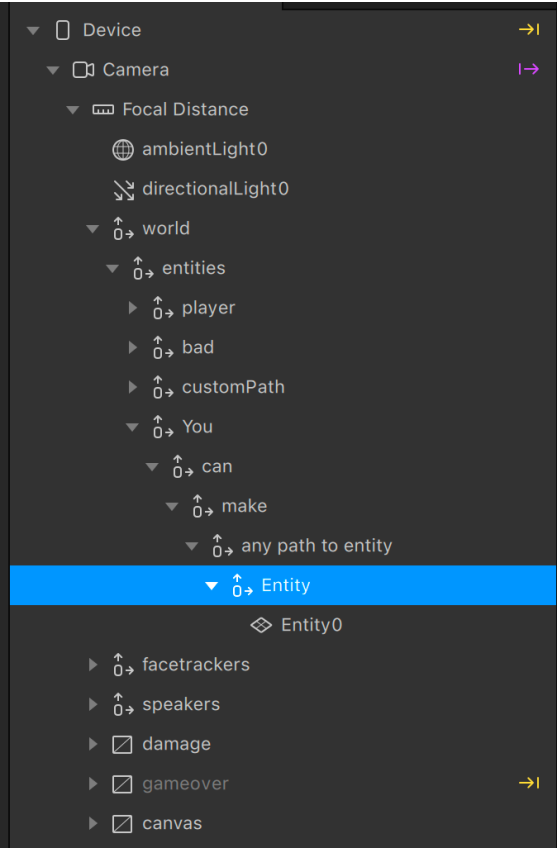


If you want to **debug colliders** of entities, add “collider” nullObject with plane or box each entity. This is optional

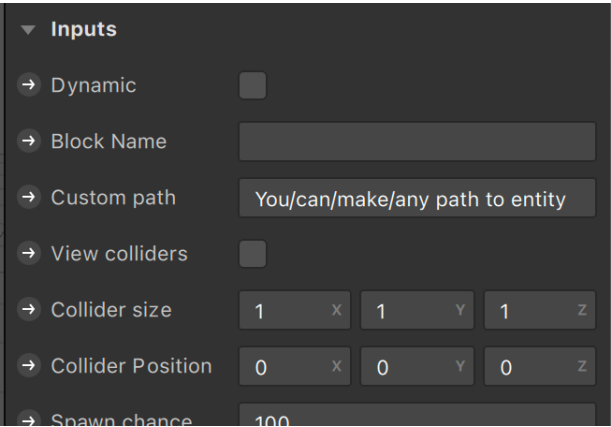
# Entity Settings

|                     |   |
|---------------------|---|
| Custom Path         | See <a href="#">Custom Path</a>   |
| View colliders      | Enable visibility of colliders. For easy sizing   |
| Collider size       | Collider size between opposite bounds   |
| Collider position   | By default, collider size is relative to object center. Change this param to move collider center |
| Spawn chance        | Item spawn chance. The higher the value, the greater the chance of spawn                          |
| Bubble text         | The text that will appear after entity pickup   |
| Bubble text on skip | The text that will appear after entity pickup wrong item  |
| Add score           | Add or remove player score on pickup  |
| Add score on skip   | Add or remove player score after item despair   |
| Add health          | Add or remove player health on pickup   |
| Add health on skip  | Add or remove player health after item despair  |

# Custom Path

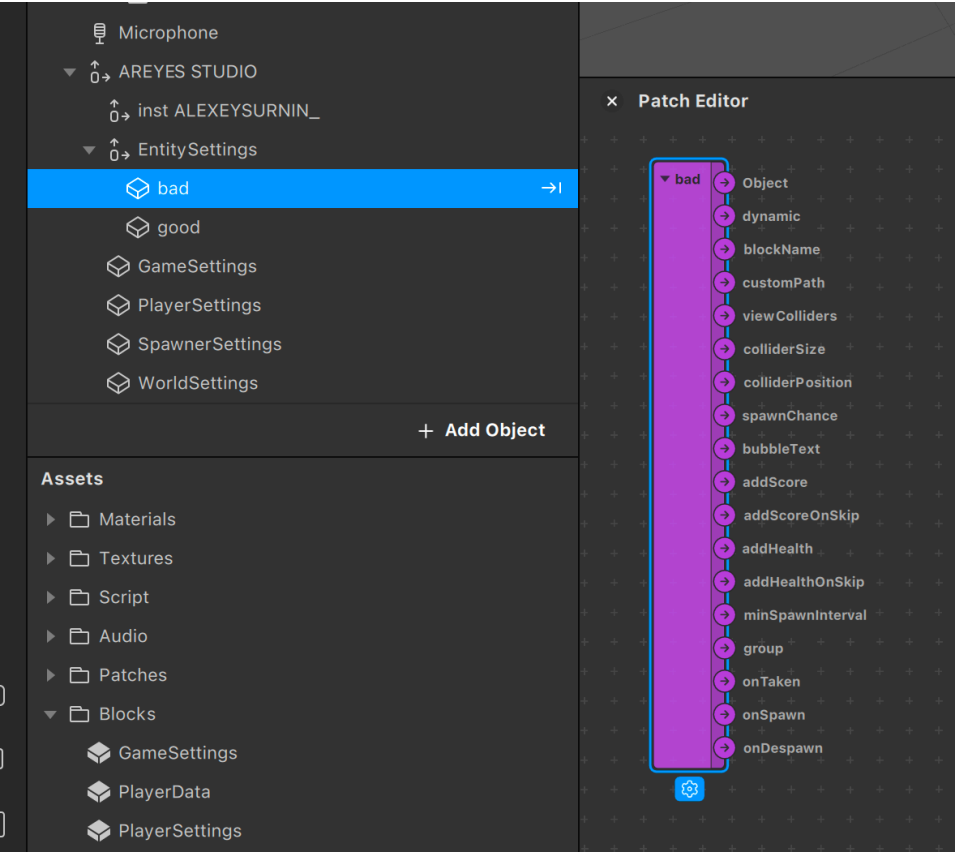


You can make any path to entity. This is for using the Render Pass. For example, if you need to render two entities in one pass.



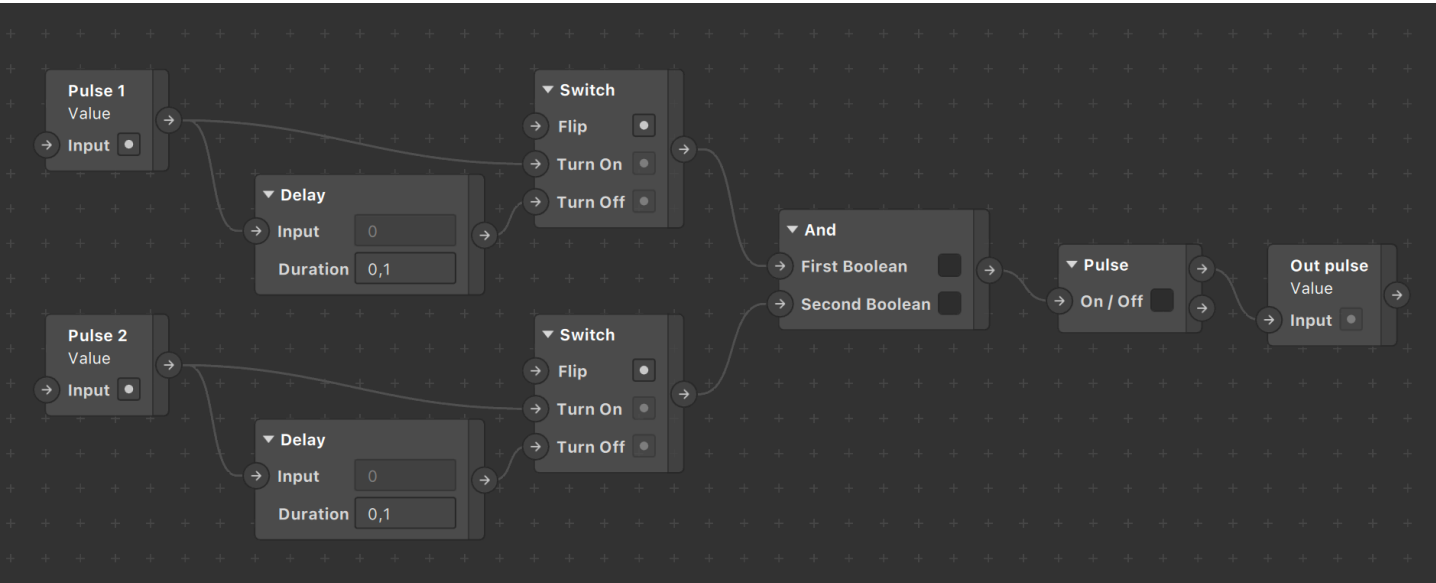
# Events

To handle events, you need to drag and drop a block with entity settings in the Patch Editor

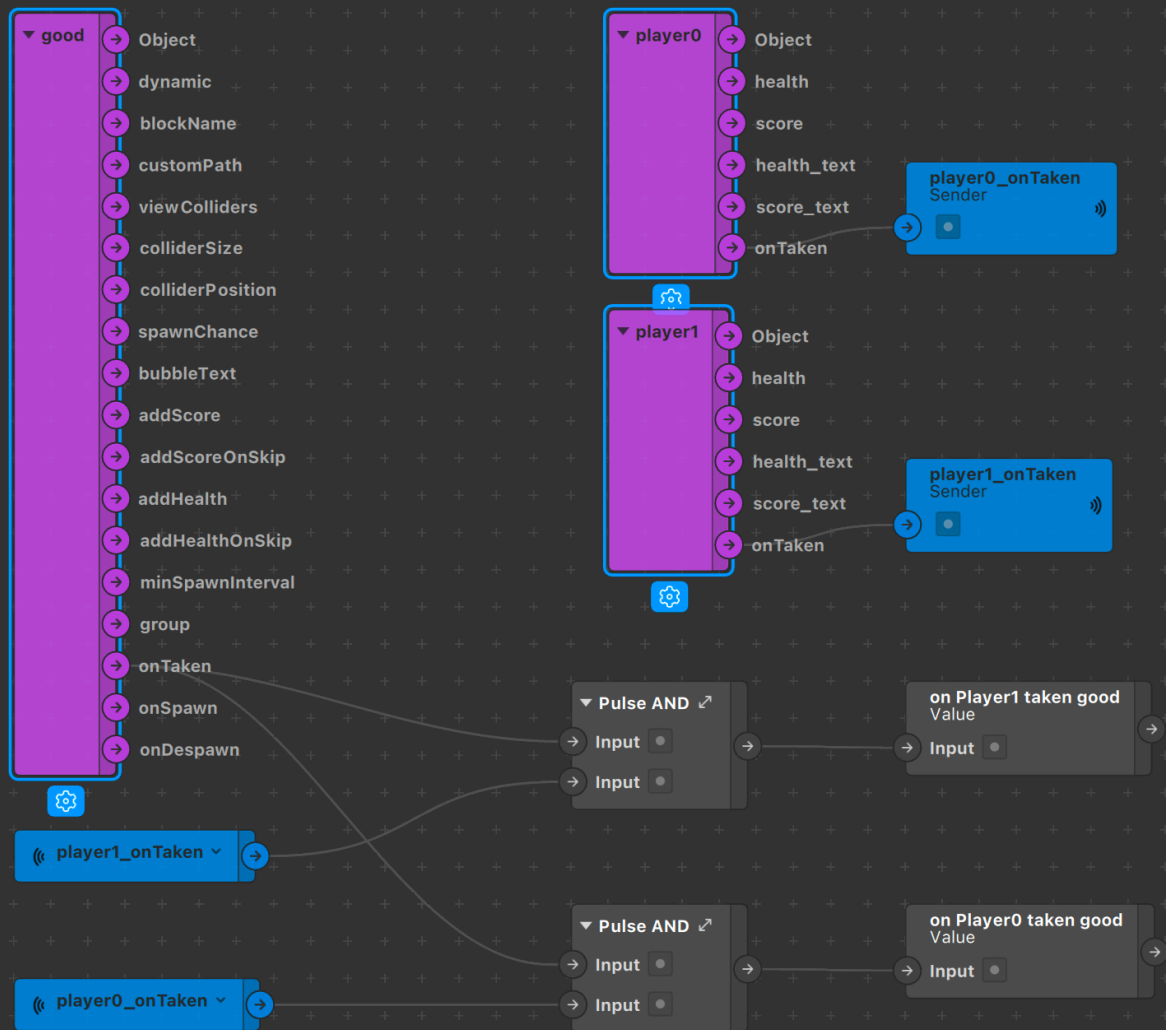


|              |                                    |
|--------------|------------------------------------|
| onTaken      | Fires on collision with item       |
| onTakenWrong | Fires on collision with wrong item |

To determine which player picked up the Entity, you can create a Pulse AND patch. And use onTaken from Entity Settings block and onTaken from PlayerData block

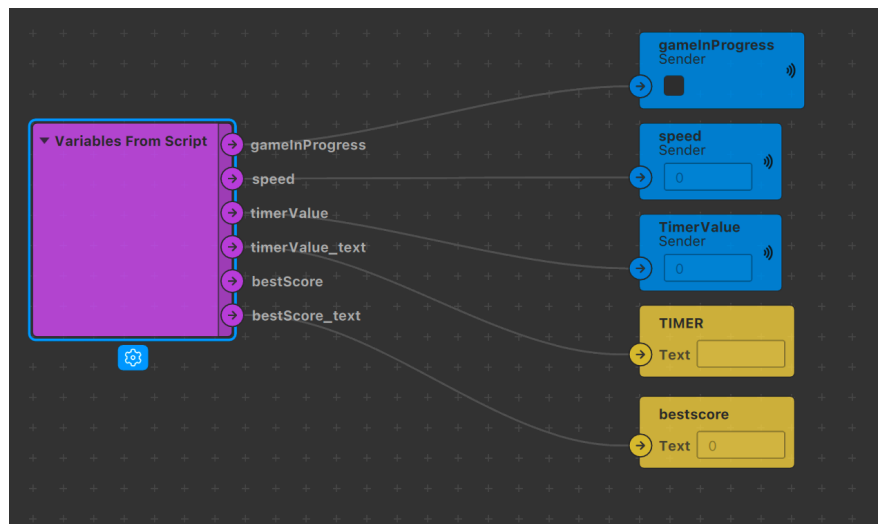


Pulse AND Patch





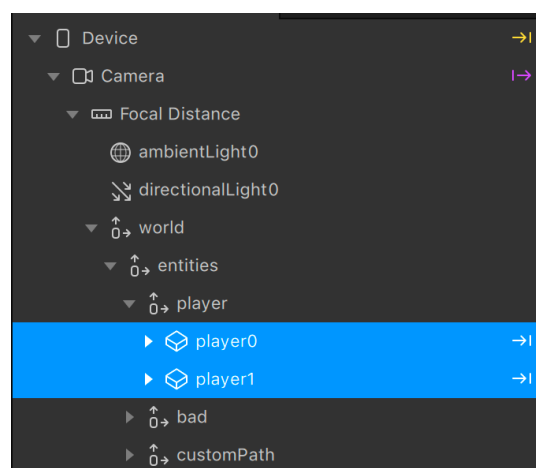
# Global Variables



|                 |  |
|-----------------|--|
| gameInProgress  | The state of the game. True if the game is started |
| speed           | The speed of moving objects, environment, etc.     |
| timerValue      | Timer value in seconds. Number                     |
| timerValue_text | Timer value in seconds. Text                       |
| bestScore       | Best score. Number                                 |
| bestScore_text  | Best score. Text                                   |

## Player Data

Player data is passed to patches through the PlayerData block. It's in world / entities / player folder

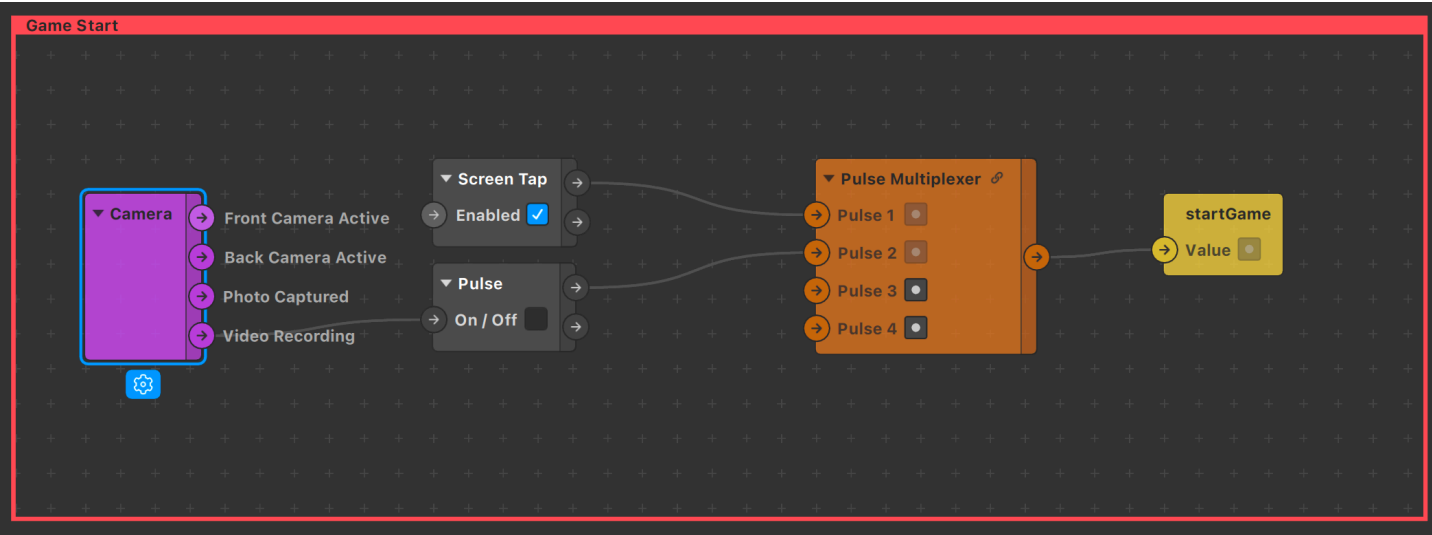


|              |   |
|--------------|---|
| health       | Current health. Number                    |
| score        | Current score. Number                     |
| health_text  | Current health. Text                      |
| score_text   | Current score. Text                       |
| onTaken      | Event. Fires on collision with item       |
| onTakenWrong | Event. Fires on collision with wrong item |

# Global Methods

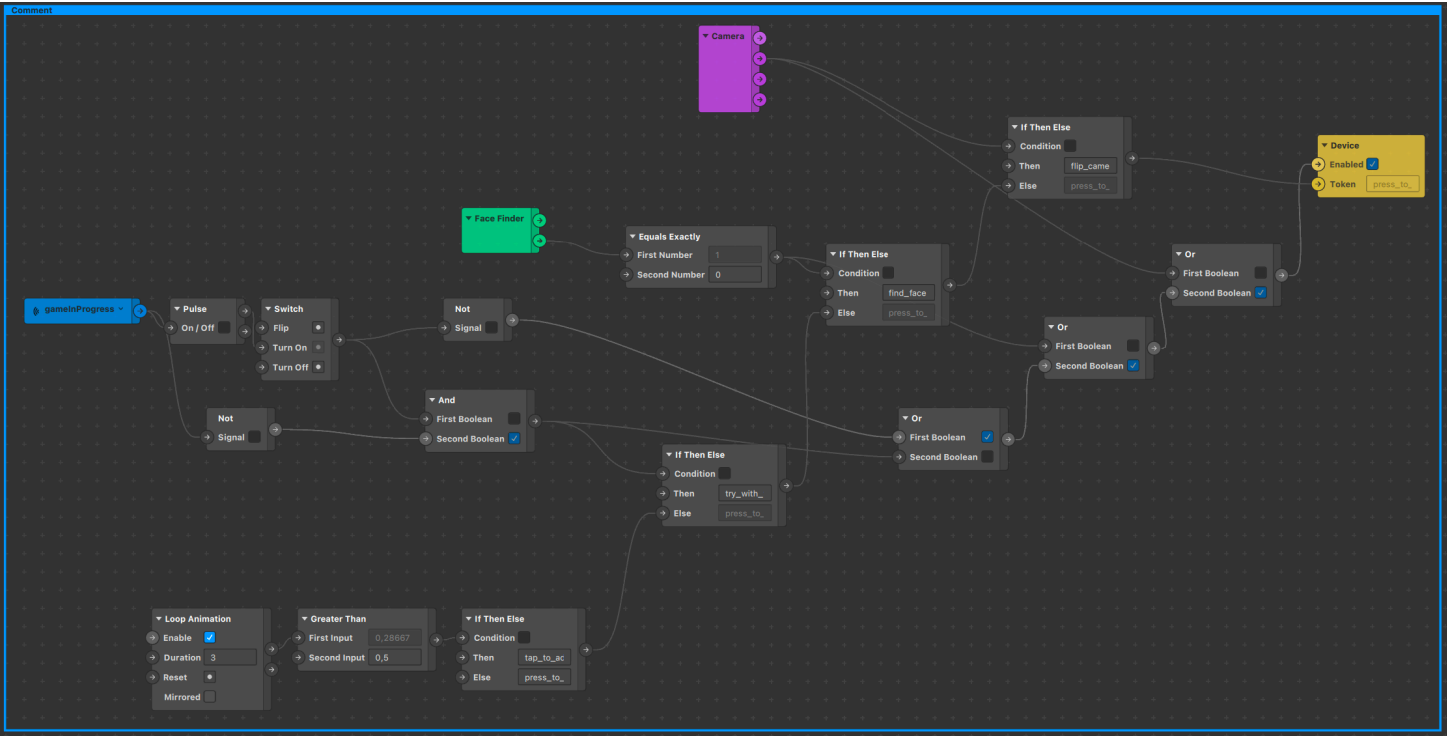
|           |            |
|-----------|------------|
| startGame | Start game |
| stopGame  | Stop game  |

By default, the game starts when you tap the screen or when you start recording a video



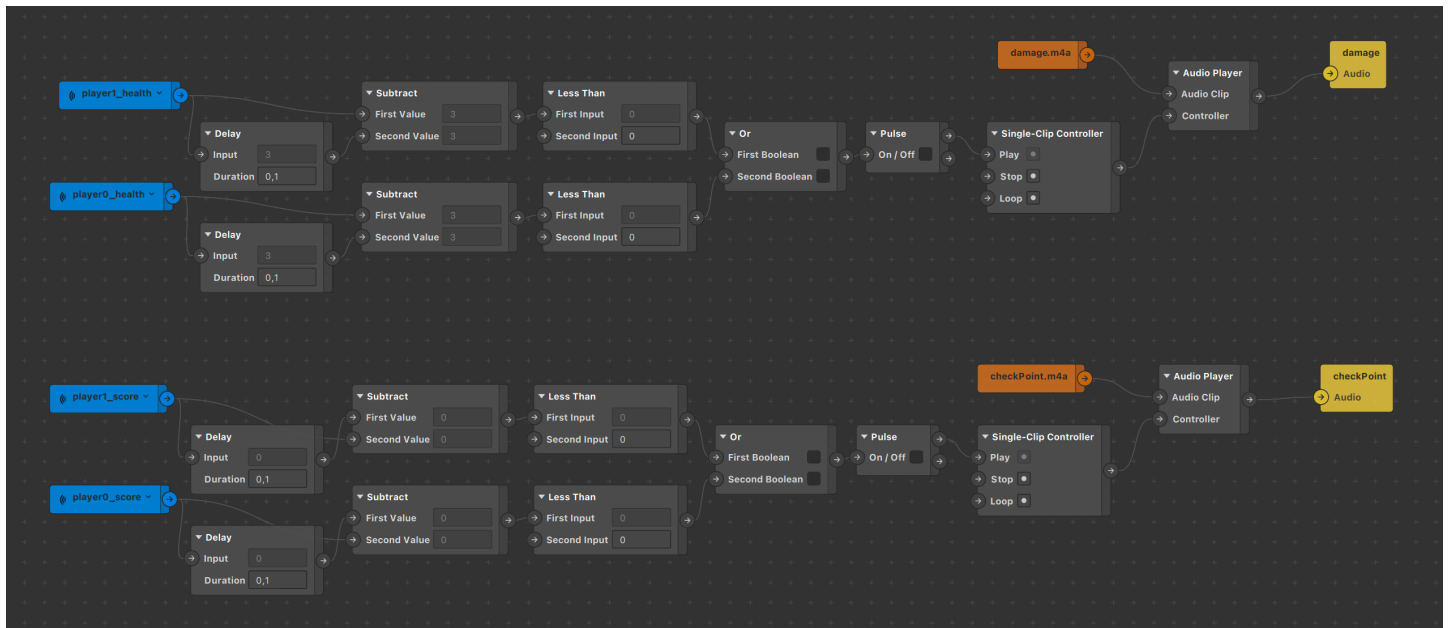
# Instructions

The settings for all instructions are displayed in the Patch Editor. You can fully customize, change the logic to fit your needs



# Audio

All audio is also controlled via the Patch editor. You can use any available events to play sounds. The most popular events and sounds are already included in the template, you just need to replace the file



To convert any audio to .m4a use [this site](#)

Settings:

- sampling rate - 44100 Hz
- audio channels - mono
- audio codec - aac

## Optional settings

Change sampling rate:

44100 Hz

Change audio channels:

mono

Trim audio:

to

00:00:00

Normalize audio:

☐

Select audio codec:

aac

# Q&A

If anything goes wrong you can always get help in our Telegram chat by link [t.me/sparkargames](https://t.me/sparkargames)

If you have any feature ideas, feel free to contact me. Almost **every** feature that comes in updates have been suggested by template users!

Q: I want to edit script, but I see something scary inside script.js

A: Sadly, you can't edit the script. Use Events and States in Patch Editor to extend template capabilities.

Q: How can I remove or change the license in the filter?

A: You can use [this program](#) to change licenses

Check out more high-quality templates at [gumroad.com/alexeyurnin](https://gumroad.com/alexeyurnin) && [gumroad.com/a\\_e\\_urnin](https://gumroad.com/a_e_urnin) && [gumroad.com/rokkoeffe](https://gumroad.com/rokkoeffe)