



Runner

User Manual

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1 Introduction

This document contains necessary information for the use or a future evolution of the platform runner game "Runner", developed in the Intelligent Computer Entertainment Lab. It's intended for users of the software.

For information on game maintenance, refer to the *Maintenance Manual*.

To run the game, simply execute the "Runner.exe" program in the Runner folder (cf. Figure 1).

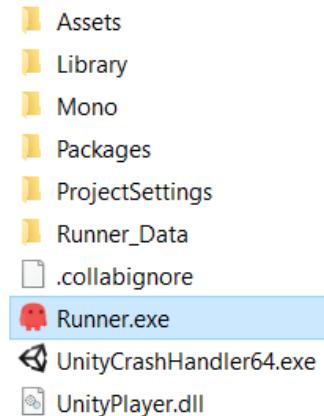


Figure 1: "Runner" folder contents

The following window appears (cf. Figure 2). Choose your configuration settings before playing and click on the "Play!" button to start the game.

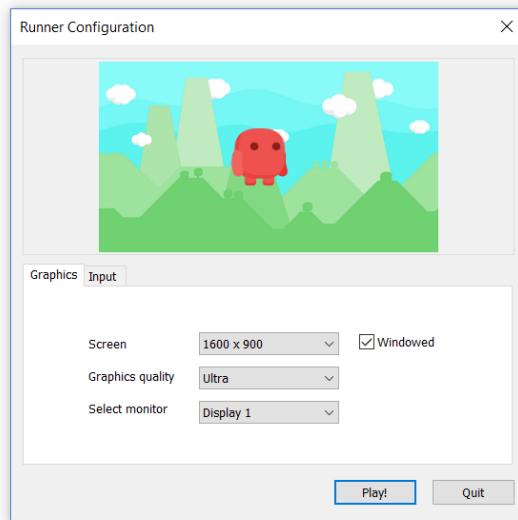


Figure 2: Configuration settings

The game is divided into two main parts : the main menu and the main level. When entered the game, you will be in the main menu interface.

2 Main Menu

The main menu is constructed around two main areas : buttons for the game (cf. 1 in Figure 3) and buttons for additional features (cf. 2 in Figure 3).

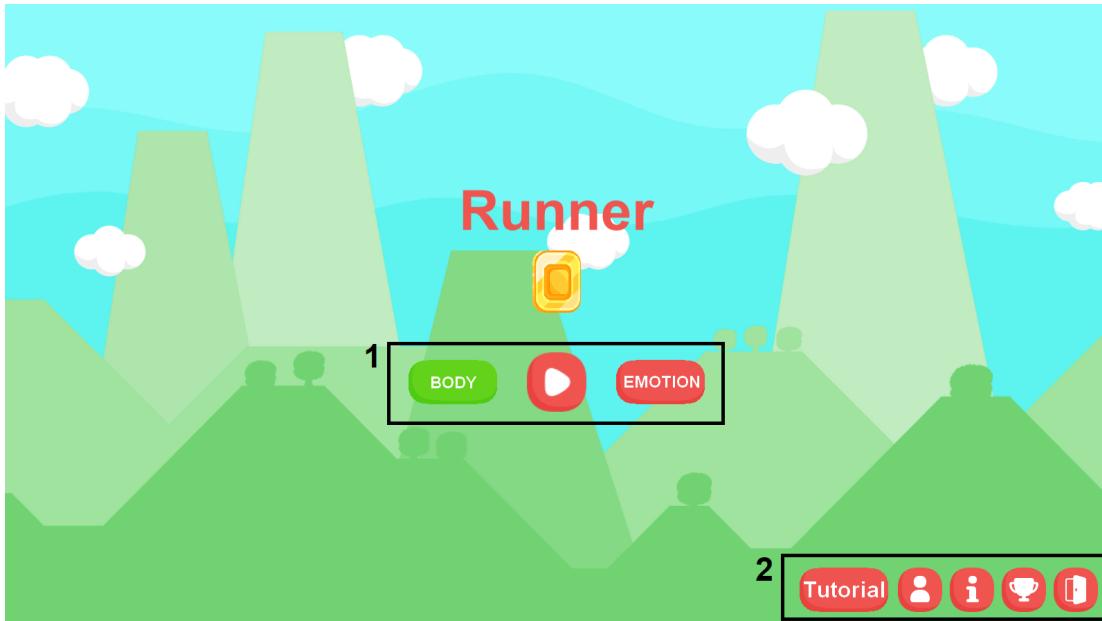


Figure 3: Main menu screen

2.1 Playing modes

To play the game, click on the button in the middle of the screen (cf. Figure 4). But before, please select the mode you would like to play at.

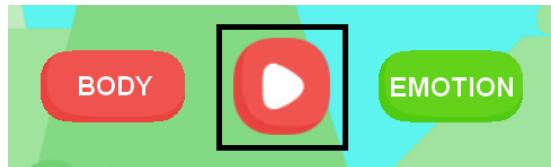


Figure 4: Play button

2.1.1 Physical Training

The "Body" mode allows you to play the game with a keyboard or with your body thanks to the UKI module and the Kinect Camera. Please, connect the camera before starting the game. Click on the "BODY" button to select the mode (cf. Figure 5).



Figure 5: Body mode button

In this mode, you can select your name, the amount of calories you want to loose thanks to a slider bar (only if you play with the UKI module), the time you want to achieve this calory goal and also the speed of the player. Please select the correct value for each slider (cf. 1 in Figure 6).

To start the game with previous settings, please click on the play button. The brain button is the test-mode for intelligent body mode, the arrow button is the test-mode for random body mode. In case of test-mode, previous settings are disabled, only your name is required. To go back to the main menu, click on the house button (cf. 2 in Figure 6).

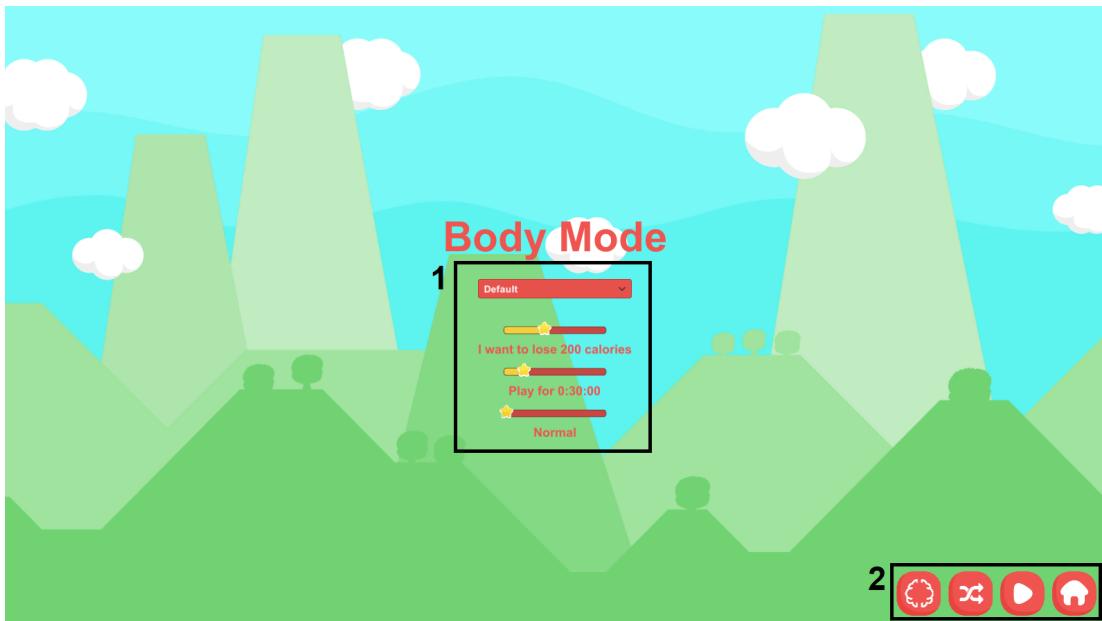


Figure 6: Body mode menu

2.1.2 Mental Training

The "Emotion" mode allows you to play with a keyboard and to make the environment evolve thanks to your facial expression. To allow facial expression recognition, please turn on your webcam. Click on the "EMOTION" button to select the mode (cf. Figure 7).



Figure 7: Emotion mode button

In this mode, you can only select your name. Your name is related to colors. Those colors are used for the level generation according to your emotions (cf. 1 in Figure 8).

Buttons on the right-bottom side of the screen allow to launch tests (cf. 2 in Figure 8). The first button, the video-clip button, launch a level with events (Penalty/Reward System) and feedback (musics & colors). The second button, music note button, launch a level with only feedback (musics & colors). The third button, the cross button, launch the level without any particular action. The last button, the play button, launch the game with events & feedback (like the first one). To go back to the main menu, click on the house button.

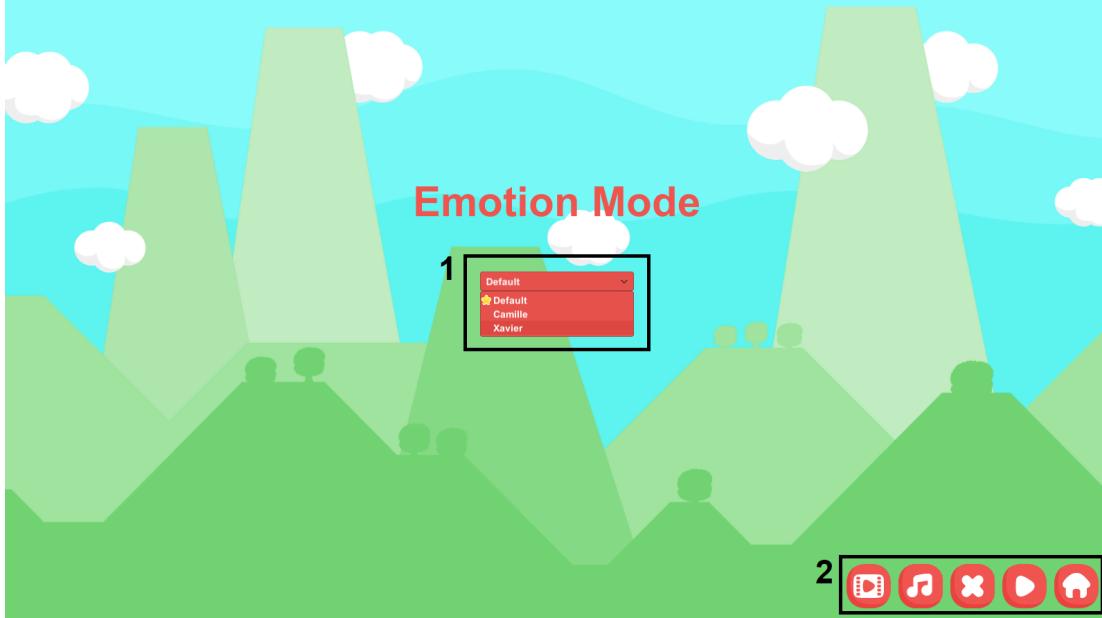


Figure 8: Emotion mode menu

2.2 Additional features

Additional features are located in the bottom-right corner of the main menu (cf. Figure 9).

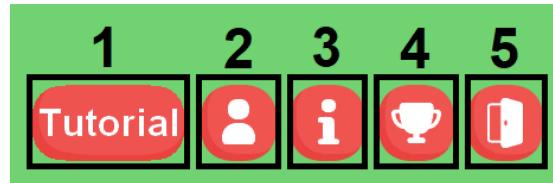


Figure 9: Additional features buttons

2.2.1 Tutorial Mode

To run the tutorial, please click on the "Tutorial" button (cf. 1 in Figure 9). The tutorial mode allows you to practice the different movements needed in the game. It helps you and shows you those movements one by one. You only have to practice 4 movements before the tutorial's end. Click on the "House" button to leave this mode before and go back to the main menu (cf. Figure 10).

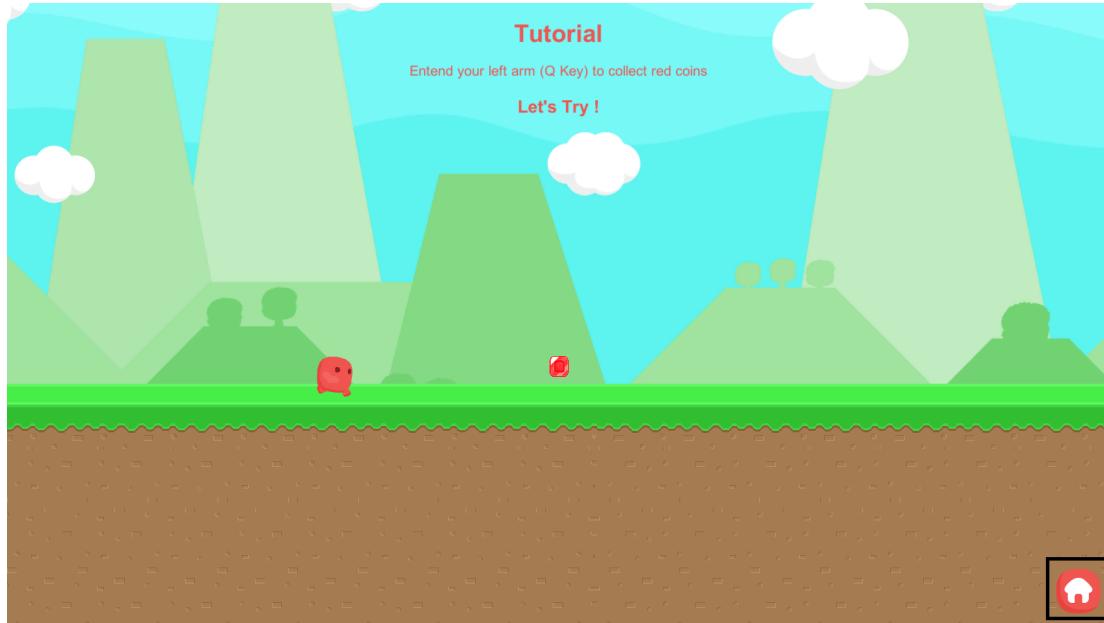


Figure 10: Tutorial mode

2.2.2 Players Settings Mode

The players settings mode allows to add, set or delete a player in the database. Those pieces of information allow to record in game data for each player but also personnalized the game according to the player preferences. To add a player, click on the "Plus" button (cf. 2 in Figure 11). To set an existing player, select first the player name in the dropdown menu (cf. 1 in Figure 11). To modify it, click on the "Cogwheel" button (cf. 3 in Figure 11). To delete it, simply click on the "Bin" button (cf. 4 in Figure 11). To go back to the main menu, click on the "House" button.

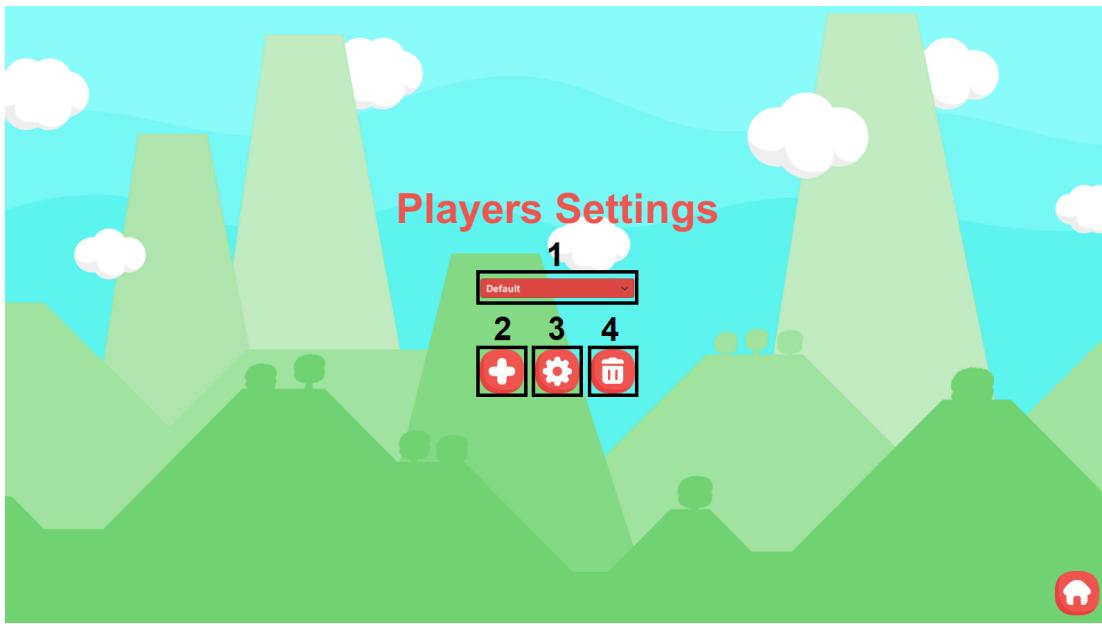


Figure 11: Players settings screen

To add a player, enter his name in the input field (cf. 1 in Figure 12) and then select a color for each emotion bellow by clicking on the colorful picture (cf. 2 in Figure 12). Click on the "Check" button to confirm the new player (cf. 3 in Figure 12).

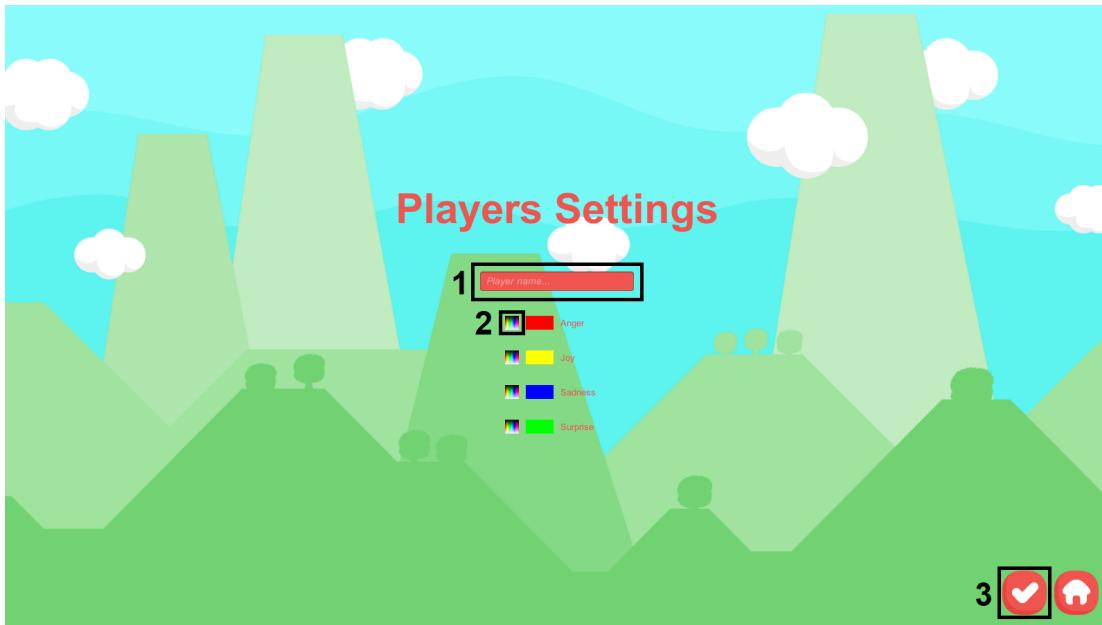


Figure 12: Adding a player screen

Same as above, click on the colorful picture to change the color associated with emotion for a player when you are in the setting player mode (cf. 1 & 2 in Figure 13). Confirm setting by clicking on the "Check" button (cf. 3 in Figure 13).

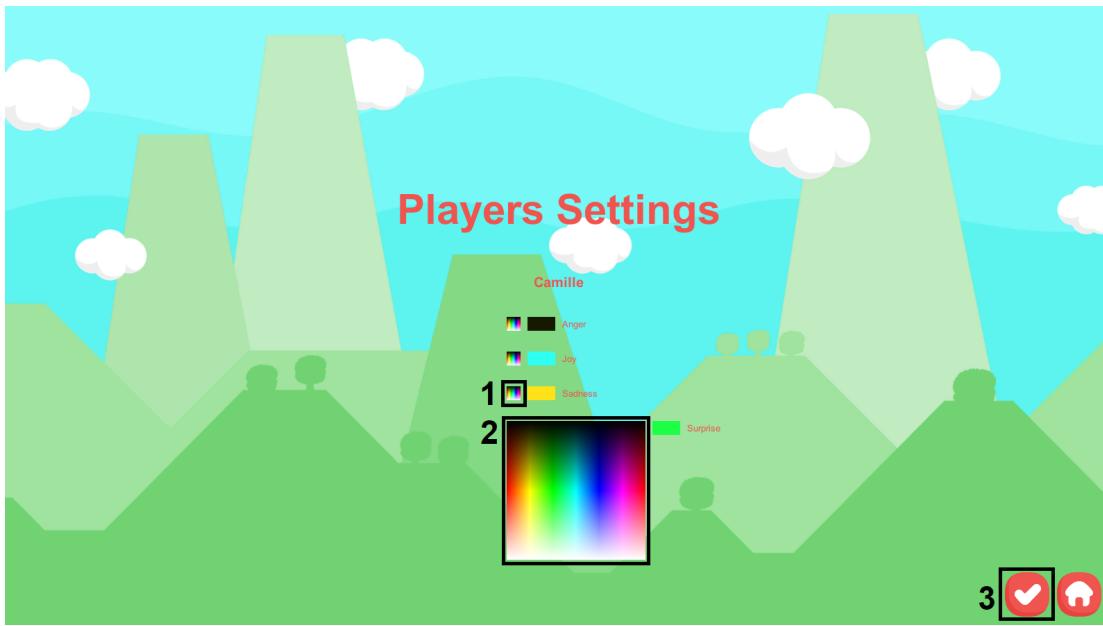


Figure 13: Setting a player screen

2.2.3 Information Screen

To see game informations, like for example game commands, simply click on the information "I" button (cf. 3 in Figure 9). To leave the information screen and go back to the main menu, click on the "House" button (cf. Figure 14).

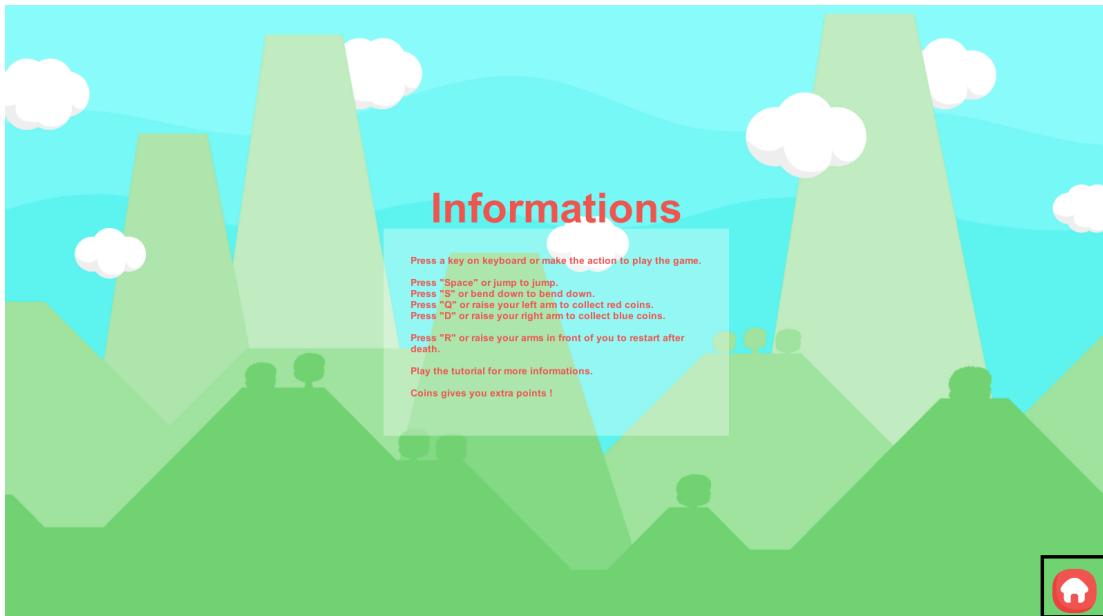


Figure 14: Information screen

2.2.4 High Score Screen

To see the high score, simply click on the "Trophy" button (cf. 4 in Figure 9). To leave the high score screen and go back to the main menu, click on the "House" button (cf. Figure 15).

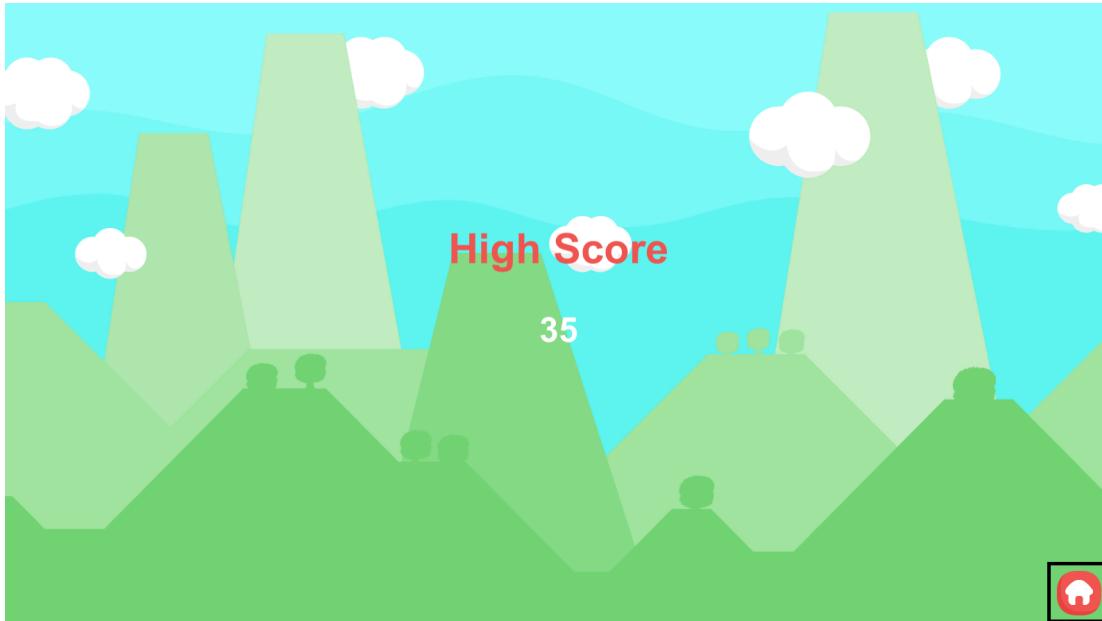


Figure 15: High score screen

2.2.5 Leave the game

To leave the game, simply click on the "Door" button in the main menu (cf. 4 in Figure 9).

3 Main Level

As mentionned above, the game contains two main modes. The first one, "Body mode", allows you to play with your body in order to loose calories. The second one, "Emotion mode", allows you to add environment's feedbacks thanks to your facial expression in order to act on your mental health. Each mode contains the same elements.

3.1 Environment Elements

The player character (cf. Figure 16) will move forward alone. You just have to make other movements decribed in section 3.2.



Figure 16: Player character

There are three type of elements : coins, enemies and scenery elements. If you collect coins, it will gives you extra points. Each coin give you one extra point in the final score calculation, no matter the color (cf. Figure 17).



(a) Red coin



(b) Blue coin



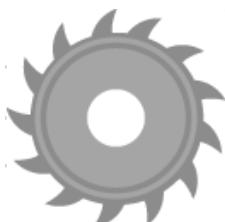
(c) Yellow coin

Figure 17: Coins

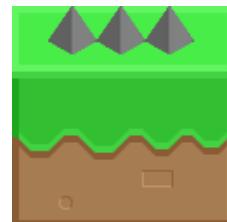
If you touch an enemie, it will kill you and the game will end (cf. Figure 18).



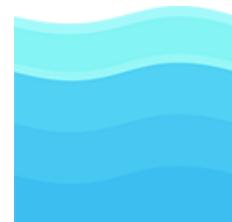
(a) Wicked block



(b) Saw



(c) Spike



(d) Water

Figure 18: Enemies

Scenery elements are a parts of the environment. They will not hurt you (cf. Figure 19).

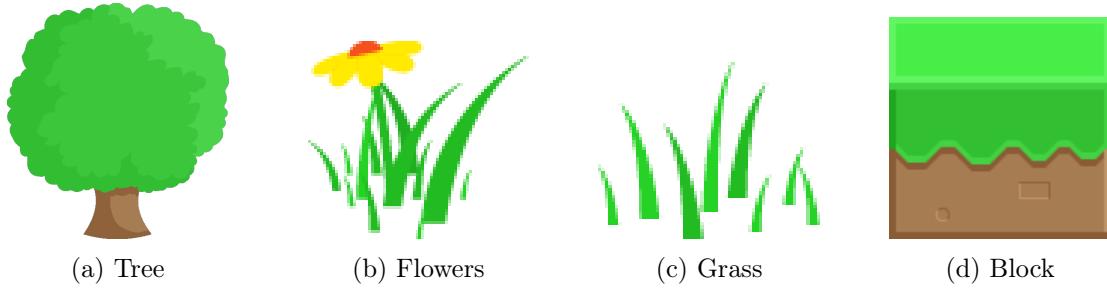


Figure 19: Scenery elements

3.2 Commands

There are 4 main commands available in each mode :

- "Q" key to collect red coins (cf. (a) in Figure 17);
- "D" key to collect blue coins (cf. (b) in Figure 17);
- "S" key for bend down movement to collect on ground yellow coins or avoid on air ennemis (cf. (c) in Figure 17 and (a) & (b) in Figure 18);
- "Space" key for jumping to avoid on ground ennemis and also collect on air yellow coins (cf. (c) in Figure 17 and (c) & (d) in Figure 18).

Specific controls exist on both mode and are explained in the next part.

3.3 Body Mode

This mode is a physical training when the Kinect camera is connected. You have to move your body to control the character :

- Extend your left arm to collect red coins (cf. (a) in Figure 17);
- Extend your right arm to collect blue coins (cf. (b) in Figure 17);
- Bend down to bend down and collect on ground yellow coins or avoid on air ennemis (cf. (c) in Figure 17 and (a) & (b) in Figure 18);
- Jump to jump, collect on air yellow coins and also avoid on ground ennemis (cf. (c) in Figure 17 and (c) & (d) in Figure 18).

At the top left corner of the screen, a distance counter is displayed. It shows the number of meters covered. Just below, you can see the coins counter (cf. 1 in Figure 20).

At the top middle of the screen, a timer is displayed only if you choose a timer to achieve your calories goal in the body mode menu before starting the game (cf. 2 in Figure 20). If you achieve your goal, the timer becomes green, but if you don't, it becomes red. It also becomes orange at the three quarters of your time goal.

At the top right corner of the screen, a calory counter is displayed. It shows the amount of calories lost since the beginning of the game. Just bellow, you can see a calory gauge which indicates your position regarding your calory lost goal (cf. 3 in Figure 20). This calory gauge is displayed only if you choose a calorie goal on the body mode menu before starting the game.

In this mode, all environment elements are available. You can make a pause at any time by clicking on the specific button (cf. 4 in Figure 20).

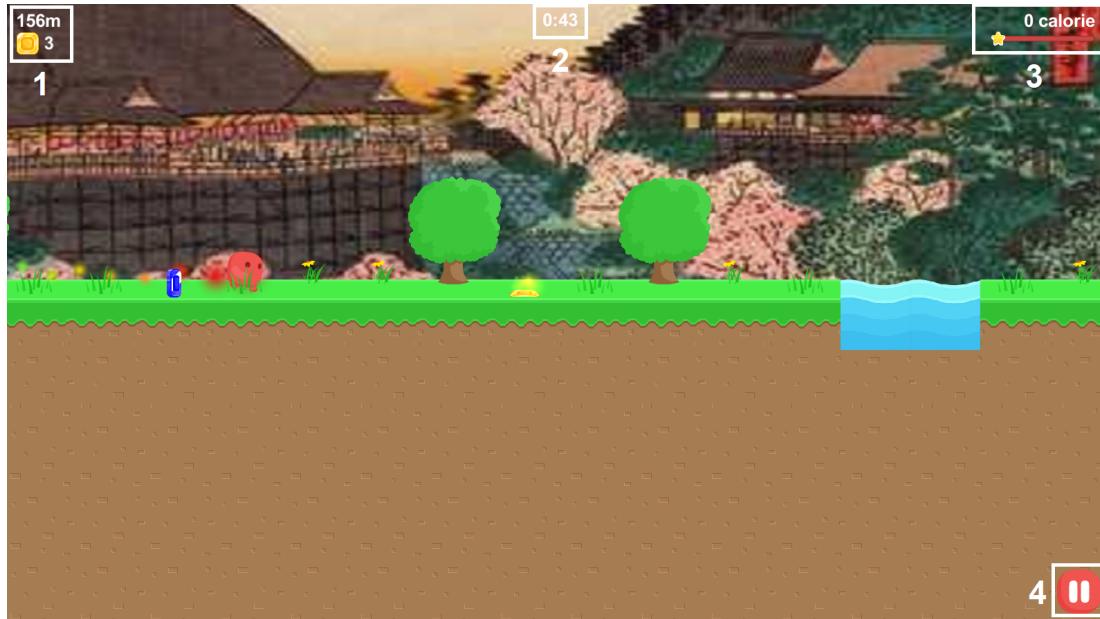


Figure 20: Body mode screen

3.4 Emotion Mode

This mode is a mental health training when your webcam is connected. By default, environment elements are disabled (cf. (a) Figure 21), that is to say when no expression is recognized on your face. But, if you make a specific expression, environment elements will appear, like flowers or tree. Then, the color of those elements will change according to your emotion. The main character color will also change (cf. (b) Figure 21).

By default, emotions are associated with colors as follow :

Emotion	Color
Anger	Red
Sadness	Blue
Joy	Yellow
Surprise	Green

But, you can set those colors thanks to the player settings screen in the main menu. A specific music will also be played according to your emotion.



(a) Without facial expression

(b) With anger

Figure 21: Emotion mode screen

3.5 Pause Screen

When the pause screen is displayed, the game is paused. You can now go back to the main menu by clicking on the "House" button (cf. 1 in Figure 22), restart the game by clicking on the "Arrow" button (cf. 2 in Figure 22) or leave the game by clicking on the "Door" button (cf. 3 in Figure 22). You can also leave the pause screen, by clicking on the "Play" button in the bottom right corner of the screen (cf. 4 in Figure 22).



Figure 22: Pause screen

3.6 Death Screen

Death screen is displayed when you die in the game. It shows the covered distance, the number of coins collected, the multiplier for the coin value, the total score compute thanks to previous parameters ($\text{Total Score} = \text{Distance} + (\text{Coins} * \text{Multiplier})$) and the amount of calories lost. If you break the high score and/or reach your calory goal, it will be mentionned on this screen.

You can go back to the main menu by clicking on the "House" button (cf. 1 in Figure 23), restart the game by clicking on the "Arrow" button (cf. 2 in Figure 23) or leave the game by clicking on the "Door" button (cf. 3 in Figure 23).

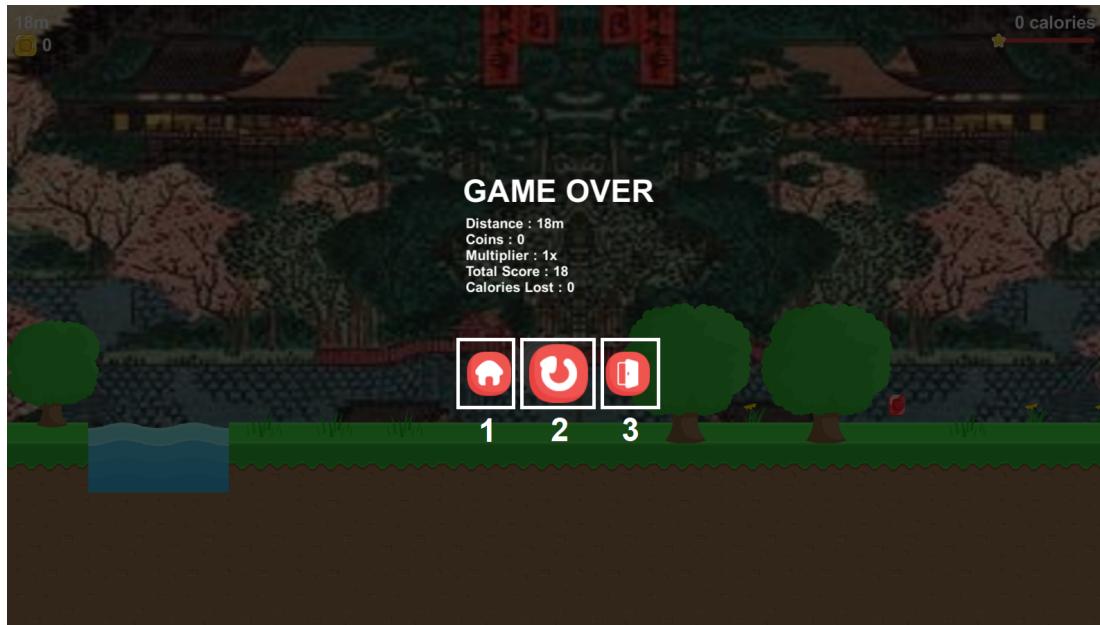


Figure 23: Death screen

4 Contacts

For any use problem or any question, please contact one of the person bellow :

- Camille El-Habr : camille.el.habr@gmail.com
- Xavier Garcia : xav.tps@gmail.com