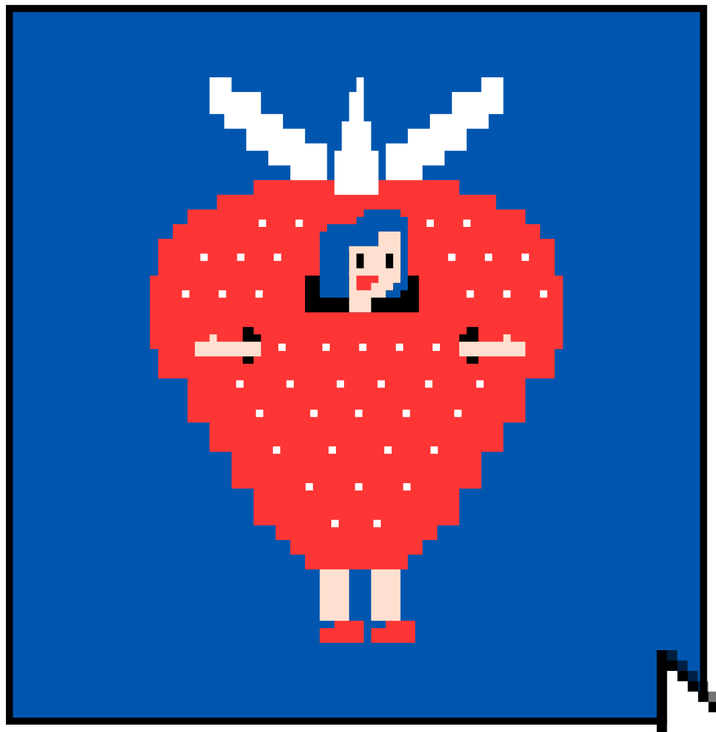
Parcours international

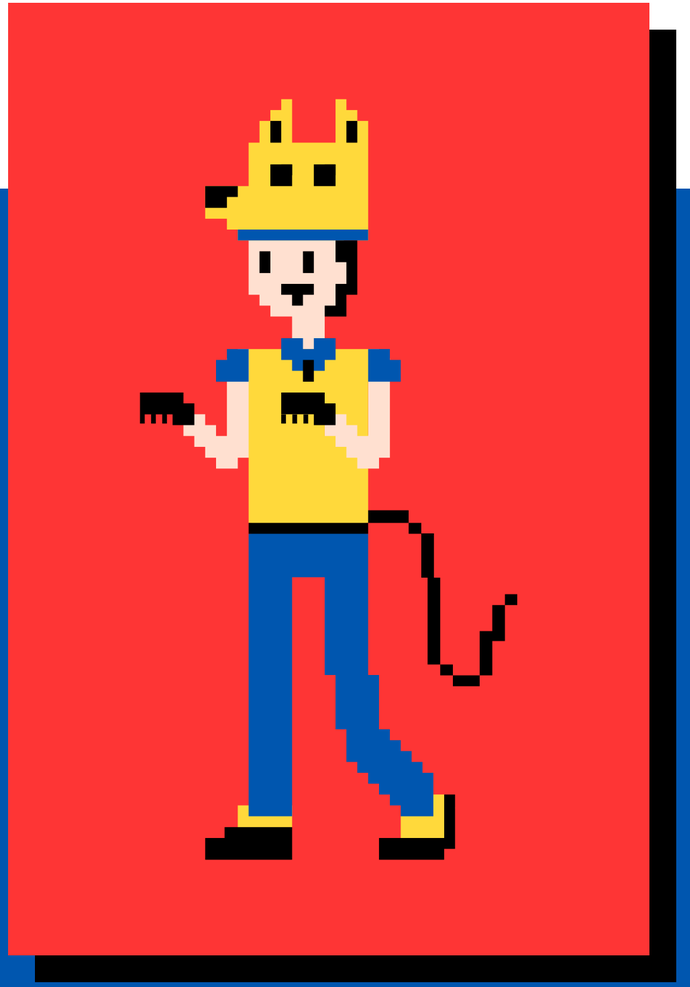


STILL RUN

From Jeanne and Anouk

Ambitious project

Make the famous game “Temple Run” active and almost live action



Researching process

01 Find a fun and famous game

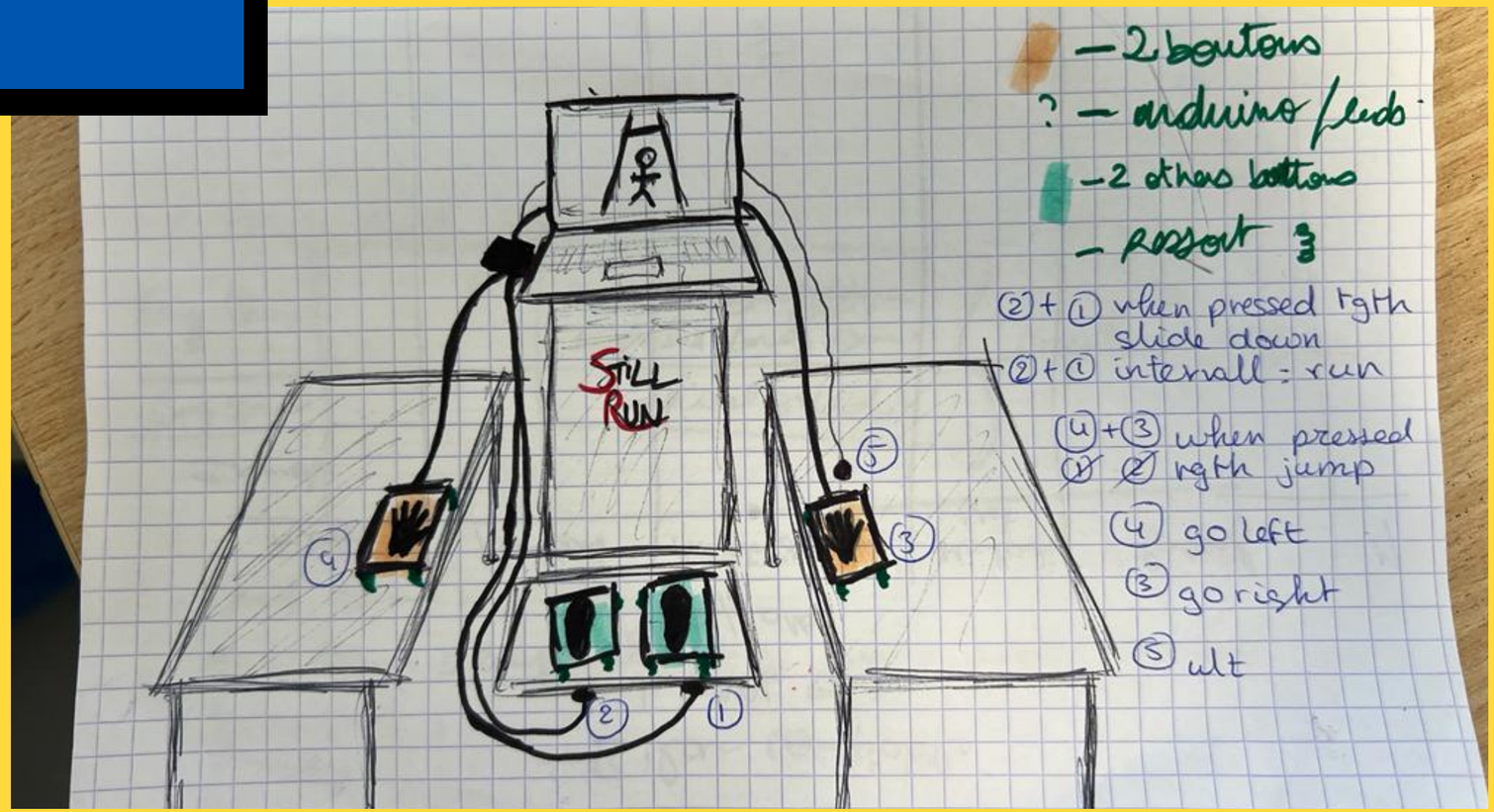
02 Find an innovative way to play it and make it real

Problem number 1

how to connect the plates and the pressure captor to activate it

We had to find a way to use pressure captors as a way to play Temple Run. So we decided to create wooden plates to push down on those pressure captors. But we had to be creative to find a way to have the plates elevated so that we could actually push down with our hands

Drawing


STILL
RUN
- 2 boutons
? - arduino / leds
- 2 others bottons
- ressort
② + ① when pressed tgth slide down
② + ① internall : run
④ + ③ when pressed tgth jump
④ go left
③ go right
⑤ ult

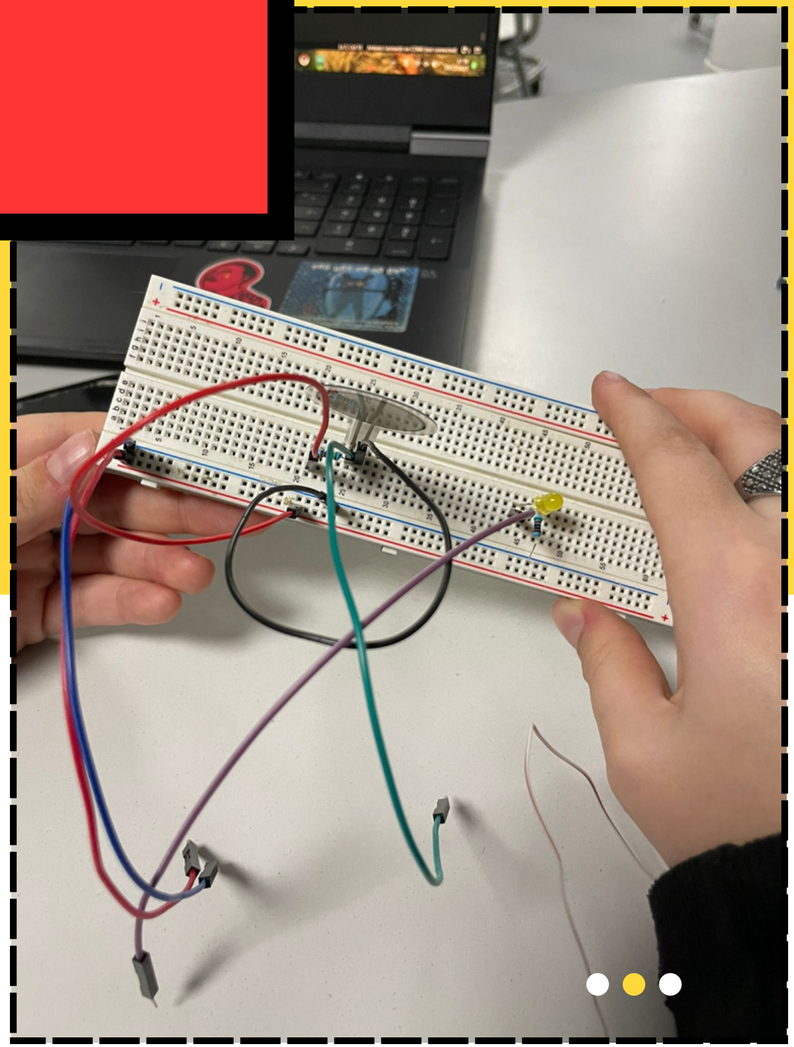
Problem number 2

not enough time

We had our equipment late and some didn’t work at first, we had to innovate and searcg for new ways of realising our project. The coding part didn’t help because our arduino didn’t connect to the computer and therefore couldn’t load and read the code

Problem number 3

how to connect everything



01

Prototype & tests

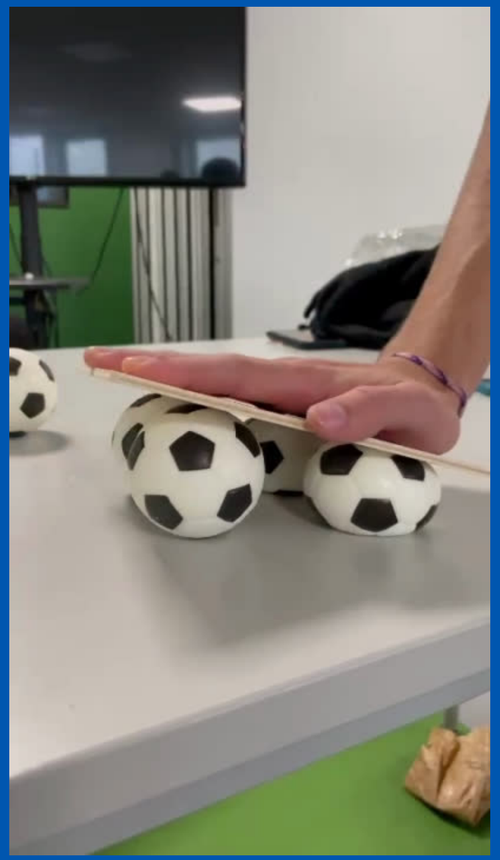
test the captor sensors with just a small circuit and a LED light

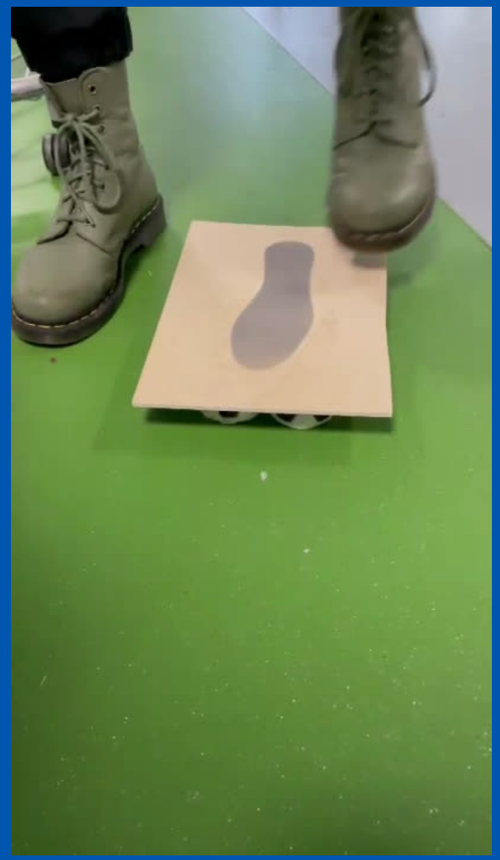
02

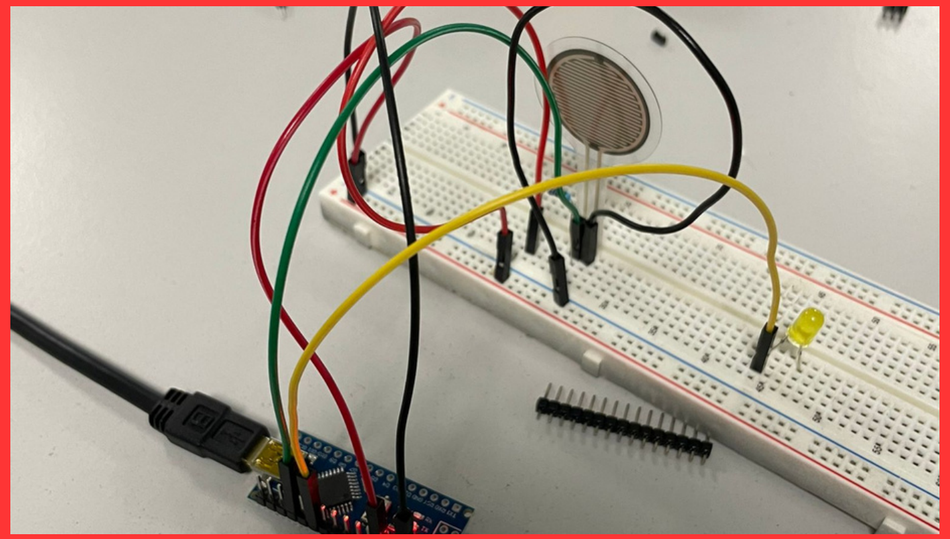
Wires and pressure captors

create very long wires to connect the pressure captors on the plates to the breadboard

maquette







some behind the scene pics and shots ;]

Project realisation

Idea

Thinking of an original idea to play a random video games

Materials

Get the materials and try to make them work by using some coding and circuits

Work

Connect and wire everything, check for mistakes and possible improvements in the making

le code

```
const int pressureSensorPin0 = A0;  // Anal
const int pressureSensorPin1 = A1;
const int pressureSensorPin2 = A2;
const int pressureSensorPin3 = A3;

const int pressureThreshold = 1000;   // Adj

void setup() {
    pinMode(pressureSensorPin0, INPUT);
    pinMode(pressureSensorPin1, INPUT);
    pinMode(pressureSensorPin2, INPUT);
    pinMode(pressureSensorPin3, INPUT);
}

void loop() {
    int pressureValue0 = analogRead(pressureSensorPin0);
    int pressureValue1 = analogRead(pressureSensorPin1);
    int pressureValue2 = analogRead(pressureSensorPin2);
    int pressureValue3 = analogRead(pressureSensorPin3);
    if (pressureValue0 < pressureThreshold) {
      digitalWrite(ledPin, HIGH);
    } else {
      digitalWrite(ledPin, LOW);
    }
    if (pressureValue1 < pressureThreshold) {
      digitalWrite(ledPin, HIGH);
    } else {
      digitalWrite(ledPin, LOW);
    }
    if (pressureValue2 < pressureThreshold) {
      digitalWrite(ledPin, HIGH);
    } else {
      digitalWrite(ledPin, LOW);
    }
```

sketch_dec19a | Arduino IDE 2.2.1

File Edit Sketch Tools Help

Arduino Uno

sketch_dec19a.ino

```
#include <Keyboard.h>

const int ROW_NUM    = 4; // four rows
const int COLUMN_NUM = 4; // four columns

char keys[ROW_NUM][COLUMN_NUM] = {
  {'1','2','3','A'},
  {'4','5','6','B'},
  {'7','8','9','C'},
  {'*','0','#','D'}
};

byte pin_rows[ROW_NUM] = {9, 8, 7, 6};    // connect to the row pinouts of the keypad
byte pin_column[COLUMN_NUM] = {5, 4, 3, 2};  // connect to the column pinouts of the keypad

Keyboard keyboard = Keyboard(makeKeymap(keys), pin_rows, pin_column, ROW_NUM, COLUMN_NUM);

void setup() {
  Serial.begin(9600);
  Keyboard.begin();
}

void loop() {
  char key = keyboard.getKey();

  if (key) {
    // Depending on the pressure sensor, adjust the threshold values accordingly.
```

Output Serial Monitor

```
C:\Users\zelfi\AppData\Local\Temp\.arduinoIDE-unsaved20231119-8136-7t0mb.z34xka\sketch_dec19a\sketch_dec19a.ino:43:24: error: 'RIGHT_ARROW'
        keyboard.write(RIGHT_ARROW);
                       ^~~~~~~~~~~

exit status 1

Compilation error: 'Keyboard' does not name a type
```

Compilation err

Recherche

sketch_dec19a | Arduino IDE 2.2.1

File Edit Sketch Tools Help

Arduino Uno

sketch_dec19a.ino

```
void loop() {
  char key = keyboard.getKey();

  if (key) {
    // Depending on the pressure sensor, adjust the threshold values accordingly.
    // You may need to experiment to find the right threshold for your setup.
    if (key == '1') {
      if (analogRead(A0) > 500) {
        keyboard.write(UP_ARROW);
      }
    } else if (key == '2') {
      if (analogRead(A1) > 500) {
        keyboard.write(DOWN_ARROW);
      }
    } else if (key == '3') {
      if (analogRead(A2) > 500) {
        keyboard.write(LEFT_ARROW);
      }
    } else if (key == 'A') {
      if (analogRead(A3) > 500) {
        keyboard.write(RIGHT_ARROW);
      }
    }
  }
}
```

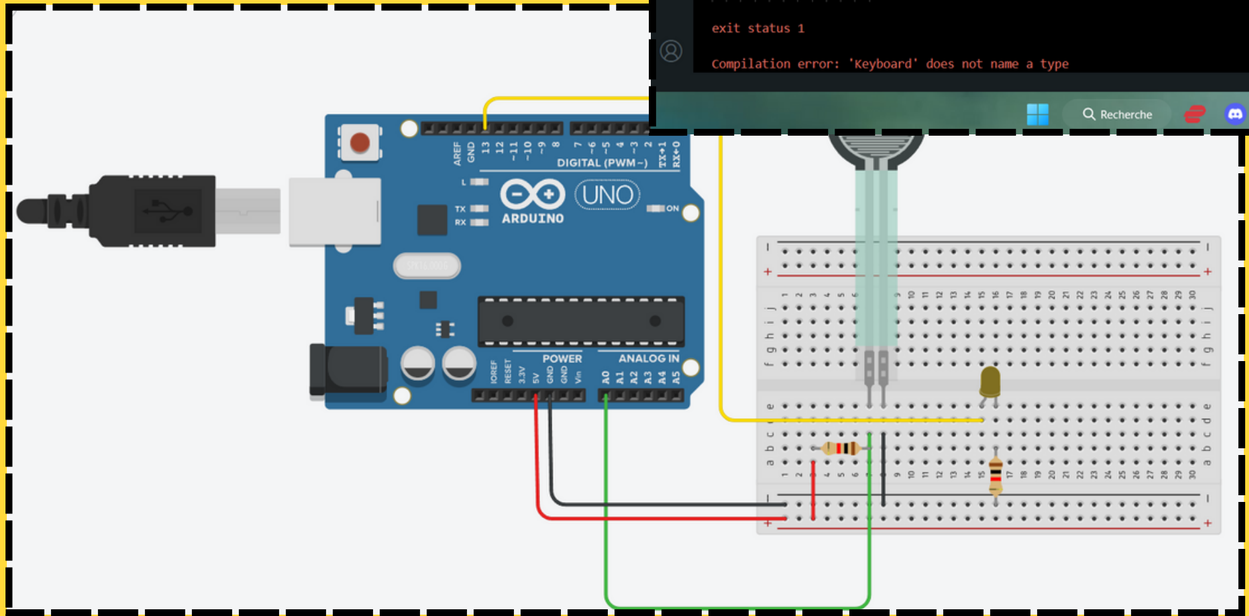
Output Serial Monitor

```
C:\Users\zelfi\AppData\Local\Temp\.arduinoIDE-unsaved20231119-8136-7t0mb.z34xka\sketch_dec19a
        keyboard.write(RIGHT_ARROW);
                       ^~~~~~~~~~~

exit status 1

Compilation error: 'Keyboard' does not name a type
```

Recherche



THANK YOU!