Extensions

For this project I've chose to implement all three extensions.

1. **Sound:**

For this part I've added free sounds from https://mixkit.co/free-sound-effects/game/ that are played upon reaching a collectable, jumping, losing the game (falling in a canyon or bumping into an enemy), shooting lasers, and reaching the portal at the end of the level.

2. **Platforms :**

The platforms are added using the factory pattern, which takes in the platform's position and width.

3. **Enemies:**

I've used a constructor for the enemy objects, which takes as arguments the position of the enemy and the range withing the enemy can float (up or down).

Difficult bits

1. Coordinates system: was a bit difficult to get used to. I constantly bumped into challenges like making the scenery objects anchored to the ground, or even making them stay on the ground on different screen sizes. Another example would be making the enemy objects float up or down withing the specified range in the constructor.

2. Some of the game's logic: for example, shooting the laser. This was difficult because at the beginning I didn't know how to implement this in such a way that the laser moves, and then disappears after hitting an enemy. Also, setting the laser's position to start every time at the character's current position was challenging for me.

Skills learned

At the end of the game project I can confidently say that I've learned many useful *p5js* features. These include things like:

- practicing the coordinates system
- building a design with the help of many elements (rect, ellipse, line, colours, opacity etc.)
- simplifying the code and structuring objects creation by using factories and constructors
- how to add and play sounds in the game