

# Lunar Lander (Penguin landing ) planning

## Lunar Lander game

We want to create a game where an object is going to land on the ground safely.  
This game is penguin who will land safely on an iceblock in the arctic.

### ## Rules

Starting with a penguin

- Penguin can move up and down
- Penguin falls down to the ground because of gravity
- Penguin goes up when pressing the mouse button
- If penguin collides with the ground too fast the game is over

### ## Order to build the game

1. Drawing the background
2. Draw the penguin
3. Add gravity to the penguin
4. Make it fly
5. Detect collision between ground and penguin
- 6.

Before writing code:

Write rules, what do we want in the game, what should happen.

Break it down in smaller steps

### ## Step 0

Setup the canvas

## Step 1

Draw the background with a blue sky, ocean, and iceblock

## Step 2

Draw the penguin, dont forget to add x and y (position) as a parameter, because the penguin needs to move

## Step 3

Add a variable to make things happen when game is running

## Step 4

Add gravity to the penguin by using a variable for the y position of the penguin  
Add velocity and acceleration

## Step 5

Add function draw. Inside function draw we can draw already drawn objects, and put all the if statements

## Step 6

Detect the collision between the penguin and the iceblock.

```
If the penguin hits the ground, the game should stop.  
How to do it:  
- Change the direction, form the pingpong animation  
- Using an if statement*/
```

## Step 7

```
//Stopping the penguin  
/*if penguin y value is bigger than 10, the game is no longer running
```

## Step 8

```
//Decide when losing the game  
//Decide when winning the game
```

## Step 9

```
/*---if screens, decide FROM where TO where,  
still inside function draw*/
```

## Step 10

```
//Decide mouse click actions
```