

Moveable

name: string

startingX: number

startingY: number

movementVector: Vector

color: string

constructor(-name: string, -startingX: number,
-startingY: number, -movementVector: Vector,
-color: string)

createVector(): Vector

movement(): void

reset(): void

createVector

let velocity: number = 5

let randomVector: Vector = new Vector
(velocity * random, velocity * random)

return randomVector

movement

this.startingX += this.movementVector.x
this.startingY += this.movementVector.y

reset

[this.startingX]
> 1180

this.startingX -= 1180

[this.startingY]
> 2020

this.startingY -= 2020

Vector

x: number
y: number

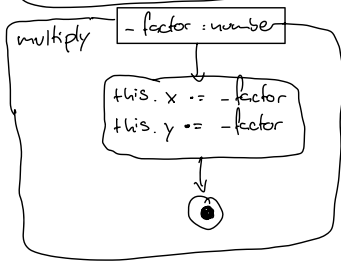
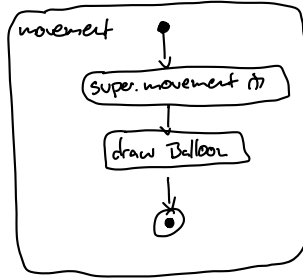
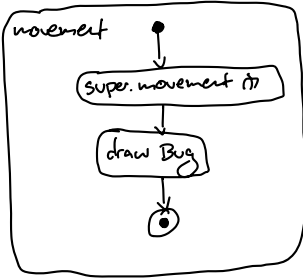
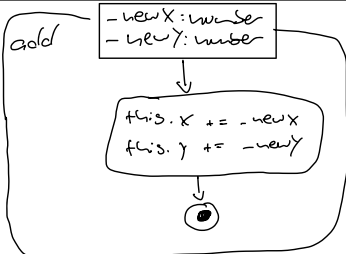
constructor (-x: number, -y: number)
add (-newX: number, -newY: number)
multiply (-factor: number)

Bug

super(-name, -startingX, -startingY, -color)
constructor(-name: string, -startingX: number, -startingY: number, -color: string)
movement(): void

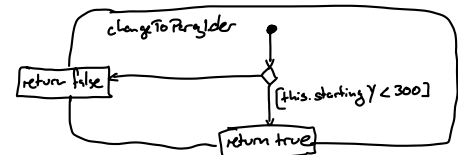
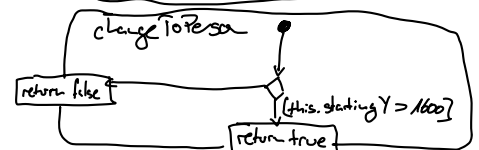
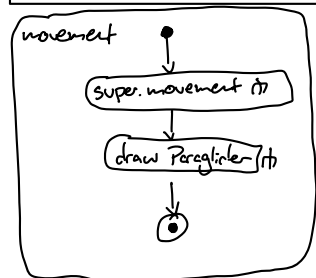
Balloon

super(-name, -startingX, -startingY, -color)
constructor(-name: string, -startingX: number, -startingY: number, -color: string)
movement(): void



Paraglider

super(-name, -startingX, -startingY, -color)
constructor(-name: string, -startingX: number, -startingY: number, -color: string)
movement(): void



add Event Listener on
"load"

```
let ctx2: CanvasRenderingContext2D  
let moveables: Moveable[] = []  
let persaVector: Vector = new Vector(0, -3)  
let imgData: ImageData
```

> load /
handleLoad()

handleLoad

```
create canvas  
drawGround()   
drawMountains()   
cloud   
airfield   
shop   
imgData = ctx2.getImageData(0,0,width,height)
```

let i: number = 0

[i < 10]

let bug: Bug = new Bug("bug", width * random, height * random, "brown")

moveables.push(bug)

[i < 6]

let balloon: Balloon = new Balloon("balloon", width * random, height * random, randomColor())

moveables.push(balloon)

[i < 6]

let para: Paraglider = new Paraglider("paraglider", width * random, height * random, randomColor())

moveables.push(para)

window.setInterval(animFrame, 50)

if

if

if

Animation

`crc2.putImageData(imgData, 0, 0)`

Sum \uparrow

$n < \text{moveables.length}$

`moveables.moveNext()`

`moveables.reset()`

next

drawGround

create gradient

add Color stops

0, blue
0.2, light blue
0.6, gray
1, green

fillStyle = gradient

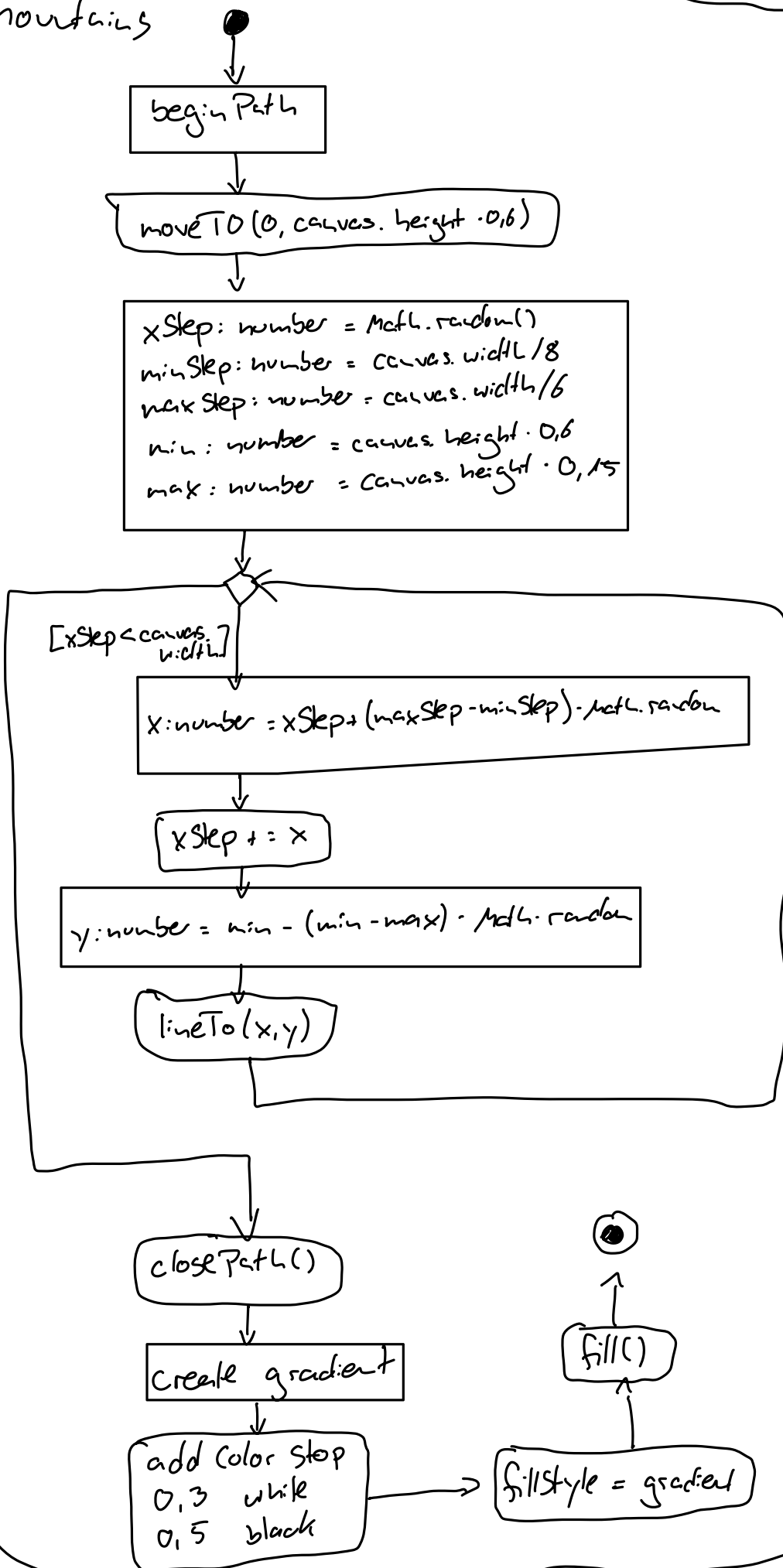
`fillRect(0, 0, canvas.width, canvas.height)`

randomColor

let r: number = `Math.random()` * 256
let g: number = `Math.random()` * 256
let b: number = `Math.random()` * 256

`"rgb("+r+", "+g+", "+b+")"`

draw mountains



sun

create gradient

add color stop

0 white

1 yellow

min: number = 0

max: number = height · 0,15

save()

translate (width · random, (max · min) · random)

sun = new Pict2D

sun.arc(0,0,75,0,2·PI)

fillStyle = gradient

fill(sun)

restore



paraglide



let n: number = 0

0

[n < paraglideArray.length]

let x: number = paraglideArray[n].startingX
let y: number = paraglideArray[n].startingY
let size: number = 60

paraglideArray[n].
changeToPerson
== true &&
paraglideArray[n].
name = "paraglider"

U + f

.movementVector.x = personVector.x
.movementVector.y = personVector.y
.name = "climber"

draw Person

[name == "climber"]

.movementVector.x = personVector.x
.movementVector.y = personVector.y

draw Person

[changeToParaglider == true &&
name == "climber"]

.name = "paraglider"
.movementVector.x = .createVector().x * h
.movementVector.y = .createVector().y * h

draw paraglider

.reset() ↗

.movement() ↗

draw paraglider

name == "paraglider"

