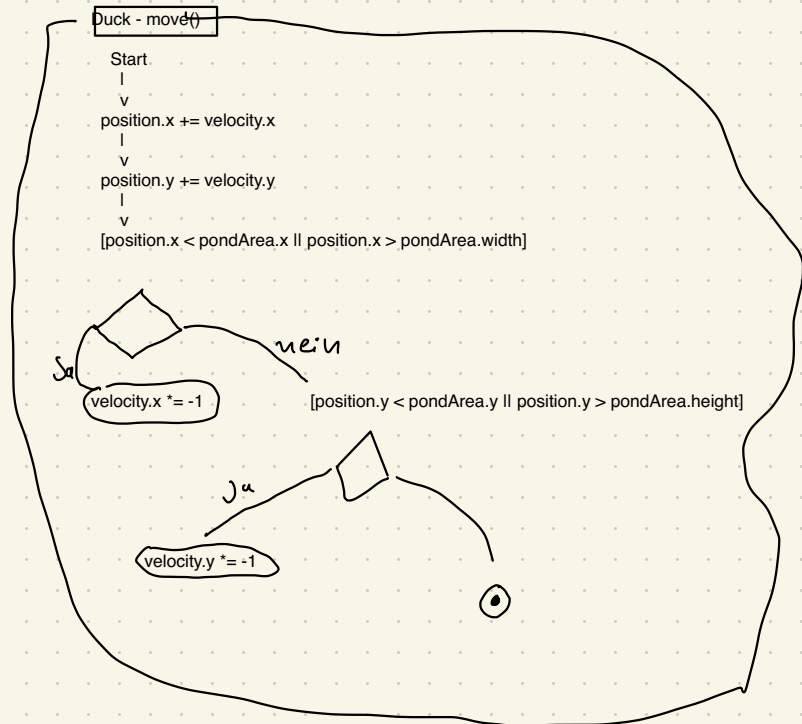
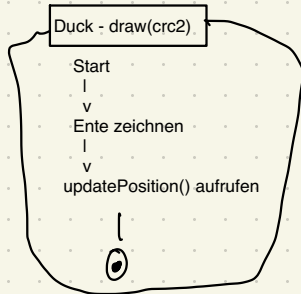
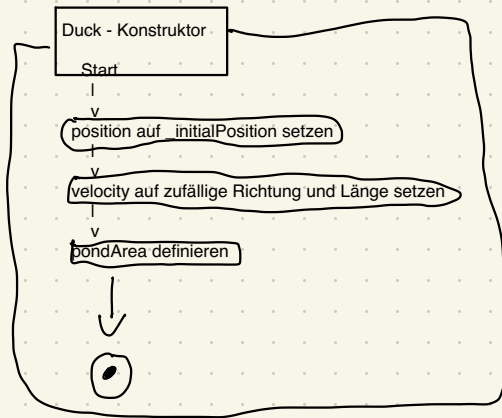


# Duck



# Dragonfly

## Dragonfly - Konstruktor

Start  
↓  
v  
position auf \_initialPosition setzen  
↓  
v  
velocity auf zufällige Richtung und Länge setzen  
↓



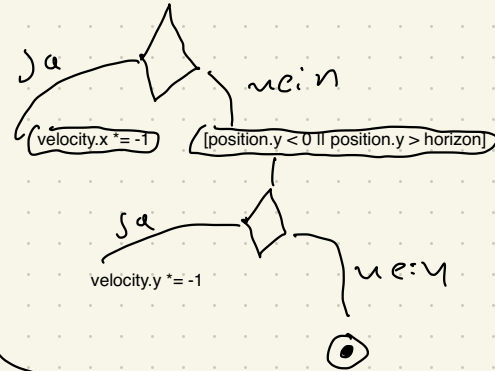
## Dragonfly - draw(crc2)

Start  
↓  
v  
Libelle zeichnen  
↓  
v  
updatePosition() aufrufen  
↓



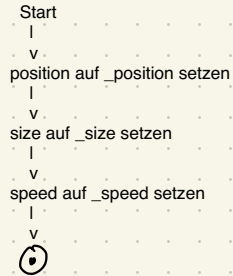
## Dragonfly - move()

Start  
↓  
v  
position.x += velocity.x  
↓  
v  
position.y += velocity.y  
↓  
v  
[position.x < 0 || position.x > canvas.width]

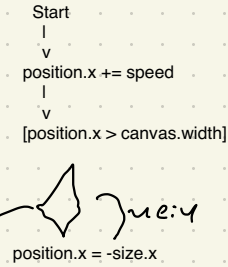


# Cloud

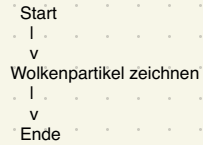
## Cloud - Konstruktor



## Cloud - move()



## Cloud - draw(crc2)

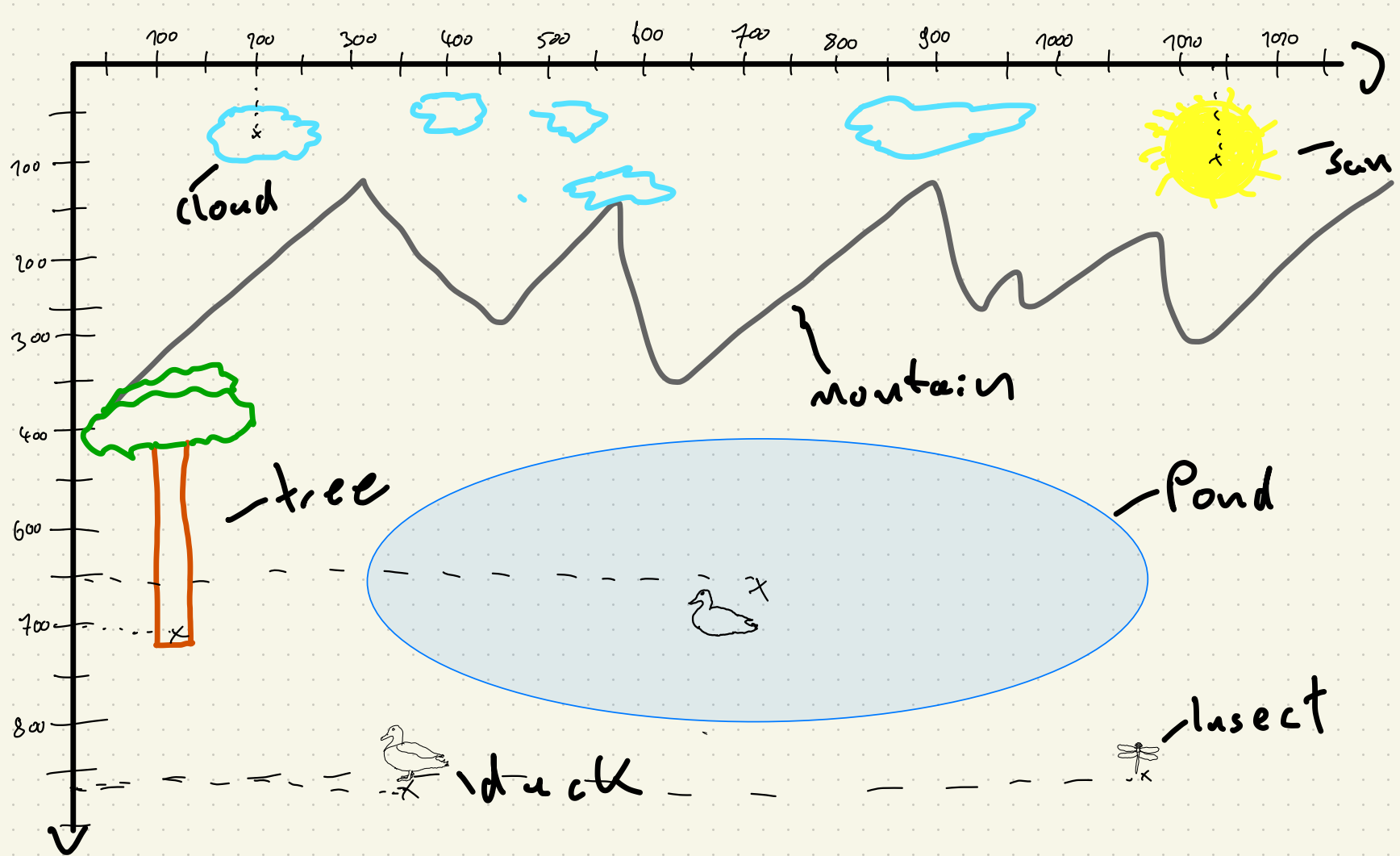



handleLoad


```
graph TD
    Start --> V1[ ]
    V1 --> Canvas[Canvas und 2D-Kontext holen]
    Canvas --> V2[ ]
    V2 --> Size[Canvas Größe setzen]
    Size --> V3[ ]
    V3 --> Horizon[horizon berechnen]
    Horizon --> V4[ ]
    V4 --> DrawBg[drawBackground() aufrufen]
    DrawBg --> V5[ ]
    V5 --> DrawSun[drawSun() aufrufen]
    DrawSun --> V6[ ]
    V6 --> CreateClouds[createClouds() aufrufen]
    CreateClouds --> V7[ ]
    V7 --> CreateDucks[createDucks() aufrufen]
    CreateDucks --> V8[ ]
    V8 --> CreateDragonflies[createDragonflies() aufrufen]
    CreateDragonflies --> V9[ ]
    V9 --> DrawStaticMountains[drawStaticMountains() aufrufen]
    DrawStaticMountains --> V10[ ]
    V10 --> DrawGrass[drawGrass() aufrufen]
    DrawGrass --> V11[ ]
    V11 --> DrawLake[drawLake() aufrufen]
    DrawLake --> V12[ ]
    V12 --> DrawAdditionalTrees[drawAdditionalTrees() aufrufen]
    DrawAdditionalTrees --> V13[ ]
    V13 --> Animate[animate() aufrufen]
```


animate


```
graph TD
    Start --> V1[ ]
    V1 --> Frame[frame()]
    Frame --> V2[ ]
    V2 --> ClearRect[clearRect() aufrufen]
    ClearRect --> V3[ ]
    V3 --> DrawBg[drawBackground() aufrufen]
    DrawBg --> V4[ ]
    V4 --> DrawSun[drawSun() aufrufen]
    DrawSun --> V5[ ]
    V5 --> DrawStaticMountains[drawStaticMountains() aufrufen]
    DrawStaticMountains --> V6[ ]
    V6 --> DrawGrass[drawGrass() aufrufen]
    DrawGrass --> V7[ ]
    V7 --> DrawLake[drawLake() aufrufen]
    DrawLake --> V8[ ]
    V8 --> DrawAdditionalTrees[drawAdditionalTrees() aufrufen]
    DrawAdditionalTrees --> V9[ ]
    V9 --> ForClouds[Für jede Wolke:  
|--> Wolke bewegen  
|--> Wolke zeichnen]
    ForClouds --> V10[ ]
    V10 --> ForDucks[Für jede Ente:  
|--> Ente zeichnen]
    ForDucks --> V11[ ]
    V11 --> ForLibelle[Für jede Libelle:  
|--> Libelle zeichnen  
|--> Position der Libelle aktualisieren]
    ForLibelle --> V12[ ]
    V12 --> RequestAnimationFrame[requestAnimationFrame(frame) aufrufen]
```





 Ente (duck)
x: number
y: number
size: number
color: string
velocityX: number
velocityY: number
position: vector
direction: vector
draw() void
move() void
constructor(size)


 cloud
x: number
y: number
size: number
color: string
position: vector
draw() void
move() void
constructor(size)

 Tree
x: number
y: number
size: number
peakColor: string
trunkColor: string
position: number
draw() void
constructor(size)

 Tree
x: number
y: number
size: number
leafColor: string
trunkColor: string
position: number
draw() void
constructor(size)

 sun
x: number
y: number
color: string
radius: number
intensity: number
position: number
draw() void

 Pond
x: number
y: number
size: number
color: string
position: number
draw() void

 Insect
x: number
y: number
size: number
color: string
wingSpan: number
position: vector
draw() void
move() void
constructor(size)