

360

User-Interface : Canvas

clouds

50 100 150 200 250 300 360

X

sun

snowflakes

mountains

ski slope

random trees

random people

640

ski lift

100

200

300

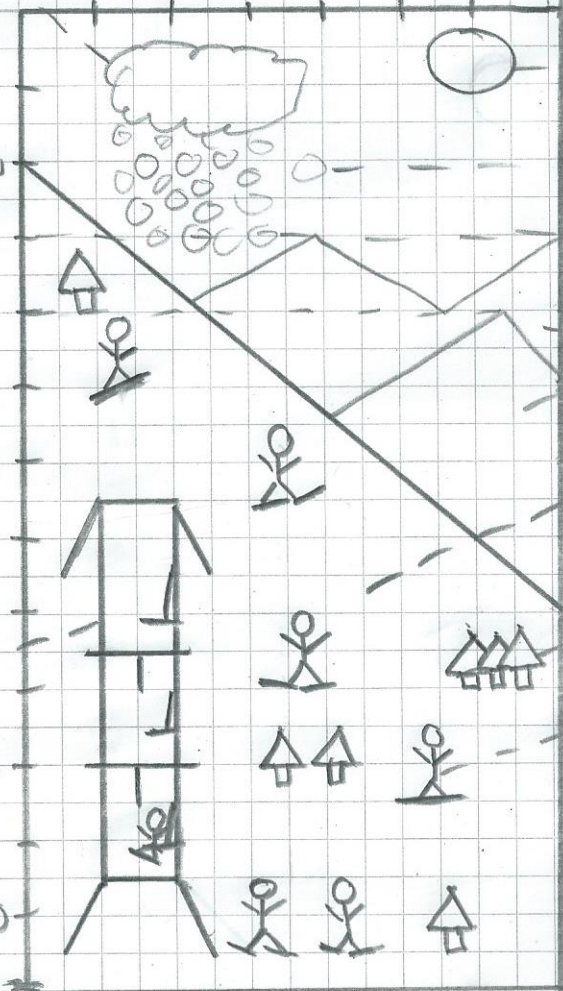
400

500

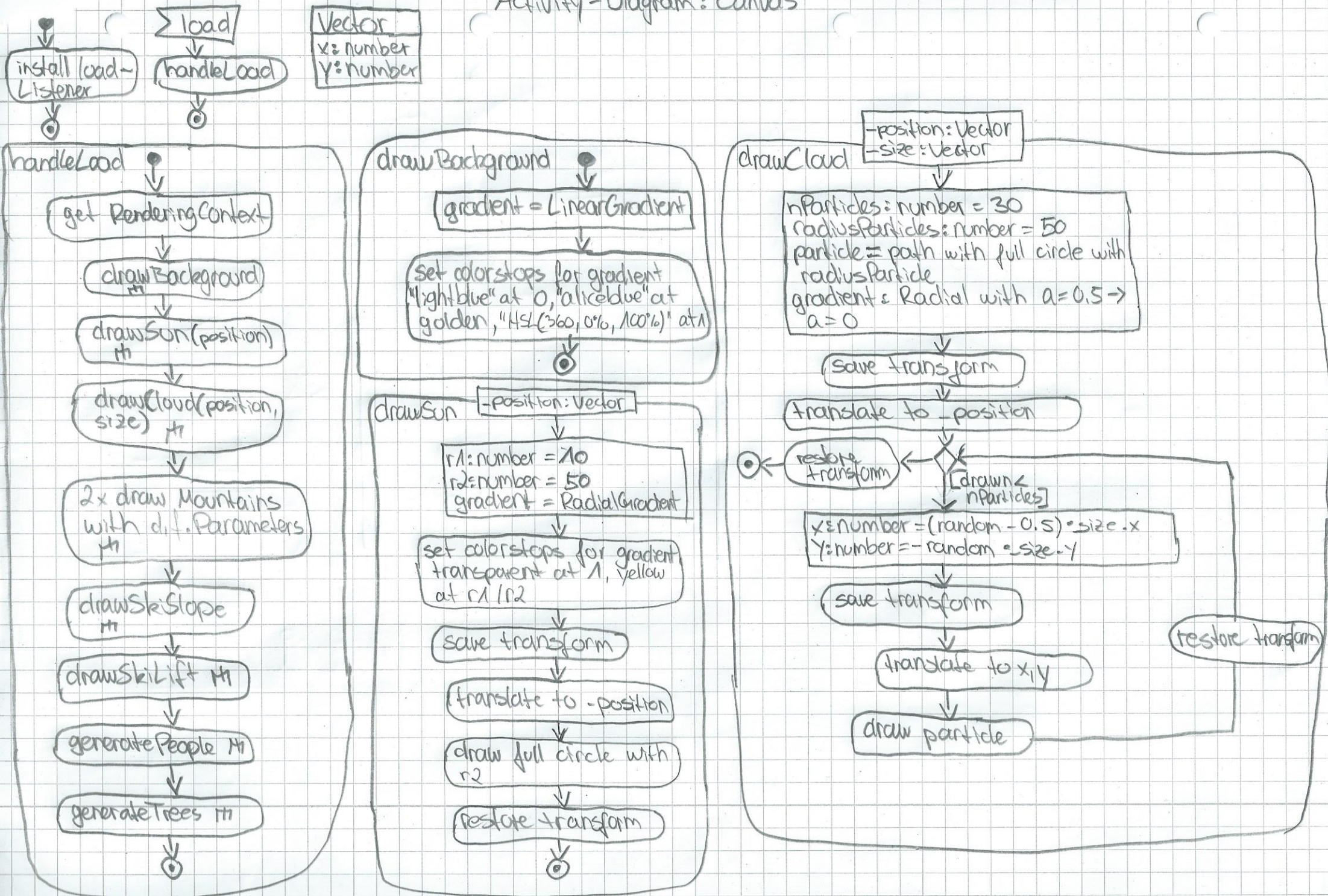
600

640

Y



Activity - Diagram: Canvas



drawMountains

```

- position: Vector
- min: number
- max: number
- colorLow: string
- colorHigh: string
    
```

```

stepMin: number = 50
stepMax: number = 150
x: number = 0
    
```

save transform

translate to -position

move to 0,0

line to 0,-max

$x += \text{random between stepMin \& stepMax}$

$y: \text{number} = -\text{min} - \text{random} \cdot (\text{max} - \text{min})$

line to x,y

[x < canvas width]

line to x,0

close Path

restore transform

drawPath

create gradient
with given color

drawSkySlope

line to 0,100

line to 0,640

line to 360,640

line to 360,400

fill with color

close Path

restore transform

drawSkilift

draw Path for Endpoint

draw path for startpoint

draw path for cable pulks
(2x)

draw path for T-bar 3x

draw path for tows 3x



generatePeople

i: number = 0

i < 5

i++

let pos: Vector = get-
RandomCoordinate(20, 340,
350, 630)

drawPeople(pos)

drawPeople

pos: Vector

x: number = pos.x

y: number = pos.y

draw path for left leg

draw Path for right leg

draw path for body

draw path for head

draw path for right arm

draw path for left arm



getRandom

min: number
max: number

random * (max - min) + min

return

getRandomCoordinate

xMin: number

xMax: number

yMin: number

yMax: number

x: number = getRandom(xMin, xMax)
y: number = getRandom(yMin, yMax)

return {x, y}

Vector

generateTrees

i: number = 0

i < 10

let pos: Vector = get Random-
Coordinate(110, 350, 640, 400)

drawTree(pos)



drawTree

pos: Vector

x: number = pos.x
y: number = pos.y

draw path for tree trunk

fill with color

restore transform

draw tree top

fill with color

restore transform

