UML Class Diagram (Text Version)

Car

+ position: Vec2
+ heading: float
+ speed: float
+ steerAngle: float
+ accel, brakeAccel, drag, maxSpeed
+ wheelbase, steerRate, maxSteer

+ update(dt, forward, backward, left, right)
+ checkCollision(...)
+ reset()

Game

- canvas_: Canvas
- renderer_: GLRenderer
- scene_: Scene
- camera_: PerspectiveCamera
- car_: Car
- wheels_: Mesh[]
- pickups_: Pickup[]
- obstacles_: Obstacle[]

+ run()
+ reset()
+ initScene()
+ spawnPickups()
+ handlePickup(...)

Pickup

+ pos: Vec2
+ radius: float
+ collected: bool
+ type: enum { SPEED, BIGNESS }

Obstacle

+ pos: Vec2
+ radius: float
+ mesh: Mesh