Package::SimuRoomba

Simulation (à deux)
Package::SimuRoomba

- myEnv: Environment
- mybots: Robot[]
- graphicInterface: boolean

+ Simulation()
+ addEnv(e: Environmnent)
+ addBot(rob: Robot)
+ start()

Move
Package::SimuRoomba
{Some Properties}

- x: int
- prev_x: int
- y: int
- prev_y: int

+ Move()
+ moveRobot(x: int, y:int)
+ paint(g: Graphics)

Environment (Alexis)
Package::OnMap

- obstacles: ArrayList<Obstacle>
- durts: ArrayList<Durt>
- dim: int[2]
- matEnv: int[][]

+ Environment()
+ setObst(o: Obstacle)
+ addObst(o: Obstacle)
+ delObst(i: int)
+ getObst(i: int): Obstacle
+ setDurt(d: Durt)
+ addDurt(d: Durt)
+ delDurt(i: int)
+ getDurt(i: int): Durt
+ setMat()
+ getMat(): int[][]

Robot (Tiphaine)
Package::OnMap

- speed: double
- behavior: Behavior
- sensDurt: SensorDurt
- sensObst: ArrayList<SensorObst>

+ setSpeed(v: double)
+ getSpeed(): double
+ setBehavior(b: Behavior)
+ getBehavior(): Behavior
+ generateNext(e: Environment): Pos

GraphicInterface
Package::OnMap

Durt
Package::OnMap

Obstacle
Package::OnMap

OnMap (Alexis)
Package::OnMap

- shapes: String[3]
- types: String[2]
- posOnMap: Pos
- shape: String
- size: double
- nature: String

Forms *3

+ setPos(p:Pos)
+ getPos():Pos
+ getSize(): double
+ setSize(s: double)
+ getShape(): String
+ setShape(s: String)

Pos (Alexis)
Package::OnMap
{Some Properties}

- x: double
- y: double
- theta: double

+ Pos()
+ clone(): Object
+ getX(): double
+ getY(): double
+ getTheta(): double
+ rotate(alpha: double): Pos
+ move(d_l: double, d_r: double, ecartRoues: double): Pos
+ normalize_angle(a: double): double
+ toStrin(): String

Package::RoombaBehavior

Behavior (Tiphaine)
Package::RoombaBehavior

- name: String

+ setName(nm: String)
+ getName(): String
+ *generateNext(rob: Robot, e: Environment): Pos*

BehaveAlea (Tiphaine)
Package::RoombaBehavior

+ generateNext(rob, e): Pos

BehaveWalls
Package::RoombaBehavior

A CHANGER

+ generateNext(v: int, prevPos: Pos, r: Room): Pos

BehavePath
Package::RoombaBehavior

- path: ArrayList<Pos>

+ setPath(tab: Pos[])
+ setPath(equation: String)
+ getPath(): ArrayList<Pos>
+ generateNext(v: double, prevPos: Pos, path: Pos): Pos

Package:: RoombaSensors

SensorBump
Package::RoombaSensors

+ getInfoSensor(): Object

SensorLaser
Package::RoombaSensors

+ getInfoSensor(): Object

SensorObst
Package::RoombaSensors

- dist: double

SensorDurt
Package::RoombaSensors

+ getInfoSensor(): boolean

Sensor (Tiphaine)
Package::RoombaSensors

- posOnRob: double[3]
- flag: boolean
- detectZone: int[2]

+ setFlag()
+ getFlag(): boolean
+ setZone(dz: int[2])
+ getZone(): int[2]
+ *getInfoSensor(): Object*