Drone

- details : JsonObject
- position : Vector3
- direction : Vector3
- destination : Vector3
- speed : float
- available : bool
- nearestEntity : IEntity*

+ Drone(JsonObject& obj) : void
+ ~Drone() : void
+ GetSpeed() : float
+ GetPosition() : Vector3
+ GetDirection() : Vector3
+ GetDestination() : Vector3
+ GetDetails : JsonObject
+ GetAvailability : bool
+ GetNearestEntity(vector<IEntity*> scheduler) : void
+ Update(double dt, vector<IEntity*> scheduler) : void
+ SetPosition(Vector3 pos_) : void
+ SetDirection(Vector3 dir_) : void
+ SetDestination(Vector3 des_) : void
+ Rotate(double angle) : void
+ Drone(const Drone& drone) = delete : void
+ operator=(const Drone& drone) = delete : Drone&

Note:
Drone(const Drone& drone) = delete removes the copy constructor

operator=(const Drone& drone) = delete removes the assignment operator

BatteryDecorator

+ attribute1:type = defaultValue
- strategy : IStrategy* = NULL
- robot : IEntity* = NULL
- nearestStation : IEntity* = NULL
- stations : vector<IEntity*>
- charge : float = 100.0

+ BatteryDecorator(IStrategy *strategy_, IEntity* robot_, float charge_, std::vector<IEntity*> stations_) : Void
+ Move(IEntity* entity, double dt): Void
+ GetNearestRechargeStation(vector<IEntity*> rechargeStations, Vector3 position): Void
+ IsCompleted(): bool
+ Recharge(double dt) : Void
+ GetCharge() : float
+ SetCharge(float c) : Void

IStrategy

graph : const IGraph*

+ operation1(params):returnType
+ Move(IEntity* entity, double dt) : virtual void
+ IsCompleted() : virtual bool
+ GetCharge() : virtual float
+ SetCharge(float c): virtual void

RechargeStation

- details: JsonObject
- position : Vector3
- direction : Vector3
- destination : Vector3
- speed: float

+ RechargeStation(JsonObject& obj) : void
+ ~RechargeStation() : void
+ GetPosition() : Vector3
+ GetDirection() : Vector3
+ GetDestination() : Vector3
+ GetDetails() : JsonObject
+ GetSpeed() : float
+ SetPosition(Vector3 pos_) : void
+ SetDirection(Vector3 dir_) : void

RechargeStationFactory

+ CreateEntity(JsonObject& entity) : IEnttiy*

<<creates>>

IEntity

id : int
graph : const IGraph*

+ IEntity() : void
+ ~IEntity() : virtual void
+ GetId() : const virtual int
+ GetPosition() : const virtual Vector3
+ GetDirection() : const virtual Vector3
+ GetDestination() : const virtual Vector3
+ GetDetails() : const virtual JsonObject
+ GetSpeed() : const virtual float
+ GetAvailability() : const virtual bool
+ SetAvailability(bool choice) : virtual void
+ Update(double dt, vector < IEntity* > scheduler) : virtual void
+ SetGraph(const IGraph *graph) : void
+ SetPosition(Vector3 pos_) : virtual void
+ SetDirection(Vector3 dir_) : virtual void
+ SetDestination(Vector3 des_) : virtual void
+ Rotate(double dt) : virtual void

IEntityFactory

+ ~IEntityFactory() : virtual void
+ CreateEntity(JsonObject& entity) : virtual IEntity*