IEntity some redundant - id: int getters throughout - graph: IGraph* because IEntity has them as pure virtual + IEntity(): IEntity + ~IEntity() + GetId(): int EmergencyPickup + GetPosition(): Vector3 + GetDirection(): Vector3 Drone - IEntity*: BatteryDecorator* + GetDestination(): Vector3 - details : JsonObject + GetDetails(): JsonObject - details : JsonObject - position : Vector3 + GetSpeed(): float - position: Vector3 - destination : Vector3 + GetAvailability(): bool - direction : Vector3 + GetStrategyName(): string - direction : Vector3 - jumpHeight : bool = 0 - speed : float - goUp: bool = true - strategyName : string + SetAvailability(bool choice): void - destination: Vector3 - strategy : IStrategy* + Update(double dt, vector<IEntity*> scheduler : void - speed : float - available : bool + SetGraph(const IGraph* graph): void - pickedUp: bool - entities : vector<IEntity*>* + SetPosition(Vector3 pos_): void - strategyName : string toTargetPosStrategy: IStrategy* + SetDirection(Vector3 dir_): void - nearestEntity = NULL; - toTargetDestStrategy : IStrategy* + SetDestination(Vector3 des_): void - toTargetPosStrategy: IStrategy* - toTargetDestStrategy: IStrategy* + SetStrategyName(string strategyName): void + Rotate(double angle): void + EmergencyPickup(): EmergencyPickup + Jump(double height) : void + ~EmergencyPickup() + ReturnNearestEntitity(): IEntity* + SetEntities(entities: vector<IEntity*>): void + GetPosition(): Vector3 + GetEmergency (): bool + GetDirection(): Vector3 + SetEmergency():bool + GetDestination(): Vector3 +GetNearestRecharge(search:vector<IEntity*>):IEntity* + GetDetails() : JsonObject + AddBattery(battery:IEntity*):void + GetSpeed(): float + GetAvailability(): bool + GetStrategyName() : string + SetAvailability(bool choice) : void + Update(double dt, vector<IEntity*> scheduler): void RechargeStation + SetPosition(Vector3 pos): void + SetDirection(Vector3 dir_): void - recharging : vector<BatteryDecorator*> + SetDestination(Vector3 des): void BatteryDecorator details : JsonObject + SetStrategyName(string strategyName) - position : Vector3 - drone:Drone* - direction: Vector3 - charge:double + SetStrategy(IStrategy* strategy) : void - destination : Vector3 - charging:bool + SetEntities(entities:vector<IEntity*>*): - available : bool - rechargeDest:Vector3 speed: float - nearestRecharge:IEntity* - nearlsMobile:bool + SearchDrone(): void + RechargeStation(JsonObject& obj): rechargeStrategy:IStrategy* + Rotate(angle:double):void RechargeStation entities:vector<IEntity*>* + ~RechargeStation() - emergency:bool + GetPosition(): Vector3 + BatteryDecorator(Drone* drone): + GetDetails() : JsonObject BatteryDecorator + GetPosition(): Vector3 **EM Pickup Factory** + BatteryDecorator(JsonObject& obj): + GetDirection(): Vector3 BatteryDecorator + GetDestination(): Vector3 + ~BatteryDecorator() + GetDetails(): JsonObject + GetNearestRecharge(vector<IEntity*> + GetSpeed(): float + ~EM_PickupFactory() search): IEntity* + GetAvailability(): bool + CreateEntity(JsonObject& entity): + GetNearestRecharge(vector<IEntity*> IEntity* search, Vector3 pos): IEntity* + Update(double dt, vector<IEntity*> + TripDistance (IEntity* passenger) : double scheduler: void + GetNearestEntity(vector<IEntity*> + SetAvailability(bool choice): void scheduler): void + SetPosition(Vector3 pos): void + Update(dt : double, scheduler : + AddBattery(battery : IEntity*): void vector<IEntity*>): void + Recharge(double amount): void RechargeStationFactory + GetDrone(): Drone* + GetRechargeDest(): Vector3 MobileRechargeStation + GetCharge(): double + ~RechargeStationFactorv() + GetId(): int - strategyName : string + CreateEntity(JsonObject& entity) : + GetSpeed(): float - strategy : IStrategy* IEntity* + GetPosition(): Vector3 + GetDirection() : Vector3 + MobileRechargeStation(JsonObject& obj) : + GetDestination(): Vector3 MobileRechargeStation + GetDetails(): JsonObject + ~MobileRechargeStation() + GetAvailability(): bool + GetPosition(): Vector3 + GetCharging(): bool MobileRechargeFactory + GetDirection(): Vector3 + GetStrategyName(): string + GetDestination(): Vector3 + GetEmergency(): bool + GetDetails(): JsonObject + GetSpeed(): float + SetEntities(vector<IEntity*>* entities): void + ~MobileRechargeFactory() + GetStrategyName(): string + SetGraph(const IGraph* graph): void + CreateEntity(JsonObject& entity) : + SetPosition(Vector3 pos_): void IEntity* + Update(double dt, vector<IEntity*> + SetDirection(Vector3 dir_): void scheduler: void + SetDestination(Vector3 des_): void + SetPosition(Vector3 pos_): void + SetAvailability(bool choice): void + SetDirection(Vector3 dir): void + SetStrategyName(string strategyName): + SetDestination(Vector3 des): void + SetStrategyName(string strategyName): + SetEmergency(bool choice): void void + SetCharging(bool choice) : void + SetStrategy(IStrategy* strategy) : void + Rotate(double angle) : void + Rotate(double angle): void + Jump(double height) : void