House::Matrix - std::vector< Tile > vec size t dim x size t dim_y Coords + Matrix() + int x + Matrix(size_t dim + int y _x, size_t dim_y) + ElementProxy operator + Coords(int x=0, int y=0) ()(size_t x, size_t y) + Coords reverse() const + ElementProxy operator + bool operator==(const ()(Coords location) Coords &other) const + Tile operator()(size + Coords operator+(const _t x, size_t y) const Coords &other) const + Tile operator()(Coords location) const + size_t getDimX() const + size_t getDimY() const void surroundWithWalls() -last direction -docking station | -tiles House size_t total_dirt Algorithm + House(Matrix tiles, Coords docking_station, - bool is charging size t total dirt) - int battery_capacity + size t getDirtLevel - std::vector< Coords (Coords location) const > path from docking -location + void cleanOnce(Coords station location) + Algorithm(Robot *robot) + bool isWall(Coords + Step decide next step() location) const Step moveToFreeDirection() + size t getTotalDirt () const + Coords getDockingStation Coords() const -algo -house -robot Robot size_t battery_capacity - float battery_left - std::vector< Step > steps_taken + Robot(House &house, size_t battery_capacity) + bool * getSurroundingWalls() + Step performNextStep() + size_t getCurrentCoordsDirt () const + float getBatteryLeft () const + std::vector< Step > getStepsTaken() - void clean() - void charge() void move(Coords next loc)

float decreaseBattery()