

Hill
- dispx: double - dispxy: double - dispy: double - hight: double - x: double - y: double
+ Gauss(double, double): double + get_dispx(): double {query} + get_dispxy(): double {query} + get_dispy(): double {query} + get_hight(): double {query} + get_x(): double {query} + get_y(): double {query} + Hill(double, double, double, double, double) + set_dispx(double): void + set_dispxy(double): void + set_dispy(double): void + set_hight(double): void + set_x(double): void + set_y(double): void

Log
- r: double - x1: double - x2: double - y1: double - y2: double
+ cylinder(double, double): double + get_r(): double {query} + get_x1(): double {query} + get_x2(): double {query} + get_y1(): double {query} + get_y2(): double {query} + Log(double, double, double, double, double) + set_r(double): void + set_x1(double): void + set_x2(double): void + set_y1(double): void + set_y2(double): void

Stoun
- r: double - x: double - y: double
+ get_r(): double {query} + get_x(): double {query} + get_y(): double {query} + set_r(double): void + set_x(double): void + set_y(double): void + sphere(double, double): double + Stoun(double, double, double)

Point
- x_cord: double - y_cord: double - z_cord: double
+ get_x(): double {query} + get_y(): double {query} + get_z(): double {query} + Point() + Point(double, double) + Point(double, double, double) + set_x(double): void + set_y(double): void + set_z(double): void

Landscape
- count_hills: int - count_logs: int - count_stouns: int - fixing_points: std::vector<Point> - hills: std::vector<Hill> - logs: std::vector<Log> - pixels: std::vector<Point> - rover_pixels: std::vector<Point> - size_x: double - size_y: double - stouns: std::vector<Stoun>
+ create(int, int, int): void + draw(): void + get_contain_hill(): std::vector<Hill> {query} + get_contain_log(): std::vector<Log> {query} + get_contain_stoun(): std::vector<Stoun> {query} + get_fixing_points(): std::vector<Point> {query} + get_land scape_height(double, double): double + get_rover_pixels(): std::vector<Point> {query} + get_size x(): double {query} + get_size y(): double {query} + Landscape() + Landscape(double, double) + set_contain_hill(std::vector<Hill>): void + set_contain_log(std::vector<Log>): void + set_contain_stoun(std::vector<Stoun>): void + set_fixing_points(std::vector<Point>): void + set_rover_pixels(Point, int): void + set_size x(double): void + set_size y(double): void

Vertex
- CameFrom: Point2D - Coordinate: Point2D - Height: double - IsObstacle: bool - IsVisited: bool - Label: double
+ get CameFrom(): Point2D {query} + getCoordinate(): Point2D {query} + getHeight(): double {query} + getIsObstacle(): bool {query} + getIsVisited(): bool {query} + getLabel(): double {query} + set CameFrom(Point2D): void + setHeight(double): void + setIsObstacle(bool): void + setIsVisited(bool): void + setLabel(double): void + Vertex() + Vertex(int, int, Point2D, double, double) + Vertex(int, int, double)

Rover
- first_series: std::vector<Point> - has_obstacle: int - landscape: Landscape* - rollover_error_code: int - rover_clearance: double - rover_direction: std::string - second_series: std::vector<Point> - third_series: std::vector<Point> - tilt_angle_forback: double - tilt_angle_side: double
+ calculate_tilts(): void + change_direction(std::string): void + check_obstacle(): void + check_tilts(): bool + get_direction(): std::string {query} + get_roll_code(): int {query} + get_tilt_angle_forback(): double {query}

Graph
+ dx: double + dy: double + landscape: Landscape* + M: int + MaxSlope: double + N: int + Vertices: Vertex**
+ FindShortestPathAndLength(Point2D, Point2D, double) + GetAllAdjacentVertices(Vertex): std::vector<Vertex> + GetEEVertex(Vertex): Vertex + GetNEVertex(Vertex): Vertex + GetNNVertex(Vertex): Vertex + GetNWVertex(Vertex): Vertex + GetRealXY(Vertex): std::pair<double, double> + GetSEVertex(Vertex): Vertex + GetSSVertex(Vertex): Vertex + GetSWVertex(Vertex): Vertex + GetValidNeighbors(Vertex): std::vector<Vertex> + GetWWVertex(Vertex): Vertex + Graph(double, double, int, int, Landscape*) + ~Graph()

-start_point-end_point

-landscape

-landscape

-landscape

+landscape

+Vertices





