Field

- cursor: Cursor
- hills: vector<Hill>
+ length: double
- logs: vector<Log>
- pixels: Point**
- stones: vector<Stone>
- unevenness_degree: double
+ width: double

+ add_hill(double&, double&, double&, double&, double&, double&): bool
+ add_log(double&, double&, double&, double&, double&): bool
+ add_stone(double&, double&, double&): bool
+ count_field(): void
+ Field(double&, double&, double&)
+ ~Field()
+ Gauss(double&, double&): double
+ Print_in_file(ofstream&): void

Cursor

- x_cord: double
- y_cord: double

+ Cursor(double&, double&)

-cursor

-control_cursor

-ptr_field

-pixels

- control_cursor: C
- control_log_file:
- gnu_load_filena
- is_date: bool = tr
- ptr_field: Field*
- rover: Rover*
- rover_gnu_file: c
- surf_gnu_file: of

+ close_files(): voi
+ Control(bool, str
+ ~Control()
+ field_count(): bo
+ field_create(dou
+ field_create_hill(
+ field_create_log
+ field_create_sto
+ field_delete(): vo
+ field_set_randor
+ field_set_randor
+ field_set_randor
+ print_message_
+ route(): void
+ rover_create(int
+ rover_drive_forw
+ rover_print_curre
+ rover_turn_180()
+ rover_turn_45_c
+ rover_turn_45_c
+ rover_turn_90_c
+ rover_turn_90_c
+ set_cursor(doub

Point

x_cord: double
y_cord: double
z_cord: double

+ Point(double&, double&, double&)

Rover

- center_gravity_location: Point
- critical_along_tilt: double
- critical_side_tilt: double
- direction: int
- first_pixels_corner_to_rover: Point ([7])
- first_pixels_row_to_rover: Point ([5])
- left_tilt: double
- length_in_pixels: int = 3
- radius_of_wheels_in_pixels: int
- right_tilt: double
- rover_field: Field* {readOnly}
- second_pixels_corner_to_rover: Point ([9])
- second_pixels_row_to_rover: Point ([7])
- straight_speed: int = 1
- third_pixels_corner_to_rover: Point ([11])
- third_pixels_row_to_rover: Point ([9])
- tilt_along: double
- tilt_to_the_side: double
- width_in_pixels: int = 3

+ change_cords(int&, int&): void
+ check_condition(): bool
+ drive_forward_speed_1(): bool
+ fill_sensor(): void
+ get_location(): Point
+ get_max_along_tilt(): double
+ get_max_side_tilt(): double
+ get_point_centerdxdy(int&, int&): Point
+ Lose(): void
+ moveTowardsDestination(Point): bool
+ moveTowardsFinalDestination(Point): bool
+ navigateAndMoveForward(): void
+ Rover(int&, int&, double&, double&, double&, double&, Field*)
+ sensor_check(): bool
+ turn_180(): void
+ turn_45_clockwise(): bool
+ turn_45_counterclockwise(): bool
+ turn_90_clockwise(): bool
+ turn_90_counterclockwise(): bool

-rover_field

-se-se-third_pixels_row_to_rover

-rover

Processor

+ rover_step(Rover&, Point): bool
+ sensor_check(): bool

Hill

- angle: double
- height: double
- sigma_x: double
- sigma_y: double
- x: double
- y: double

+ Hill(double&, double&, double&, double&, double&, double&)
+ hill_Gauss(double&, double&): double

Control

Partial (left-cut) attributes:
- Cursor
- ofstream
- me: string
- ue

- fstream
- stream

Methods (left-cut):
- ng, string, string, string)

- ol
- ble&, double&, double&): bool
- double&, double&, double&, double&): bool
- (double&, double&, double&, double&, double&): bool
- ne(double&): bool
- d
- n_hills(double&): bool
- n_logs(double&): bool
- n_stones(double&): bool
- in_log(string): void

- &, int&, double&, double&, double&, double&): void
- ard_1(): bool
- nt_loc(): void
- void
- ock(): bool
- ounterclock(): bool
- ock(): bool
- ounterclock(): bool
- le&, double&): bool

Boundary

- boundary_log_file: ofstream
- boundary_log_filename: string
- config_file: ifstream
- controller: Control*
- controller_log_filename: string
- field_command_filename: string
- gnu_load_filename: string
- gnu_rover_filename: string
- gnu_surf_filename: string
- _counted: bool = false
- is_date: bool = false
- rover_command_file: ifstream
- rover_command_filename: string

+ Boundary(string&)
+ fill_filename(string&, string&): bool
+ print_message_in_log(string&): void
+ read_config(string&): bool
+ read_field_config(): bool
+ read_rover_config(): bool

-controller

Log

- R: double
- x1: double
- x2: double
- y1: double
- y2: double

+ Log(double&, double&, double&, double&, double&)
+ log_Gauss(double&, double&): double

Stone

- R: double
- x: double
- y: double

+ Stone(double&, double&, double&)
+ stone_Gauss(double&, double&): double