

Analysis
- speed_thresh: double
- heading_thresh: double
+ converge(): void

Robot
- wheel_base: double
- wheel_track: double
- wheel_radius: double
- com_offset: double
- heading: double
- speed: double
- inner_wheel_velocity: double
- outer_wheel_velocity: double
+ drive(double,double): void
+ getSpeed(): double
+ getHeading(): double

UserInterface
- target_speed: double
- target_heading: double
+ getTargets(): void
+ getTargetSpeed(): double
+ getTargetHeading(): double

Visualization
+ show(double,double): void

Controller
- max_steering_angle: double
- max_throttle: double
- Kp_theta: double
- Ki_theta: double
- Kd_theta: double
- Kp_s: double
- Ki_s: double
- Kd_s: double
- dt: double
- target_speed: double
- target_heading: double
- speed_error: std::vec<double>
- heading_error: std::vec<double>
+ computeError(double, double): std::tuple<double, double>
+ computeSteering(): double
+ computeThrottle(): double
+ setTargets(double, double): void