

Vehicle

- wheelDiameter:double
- steeringAngleConstraint:double
- trackWidth:double
- currentVelocity:double
- desiredVelocity:double
- currentOrientation:double
- desiredOrientation:double

- + Vehicle()
- + updateOrientation():double
- + updateVelocity():double
- + ~Vehicle(void)

Controller

- kp:double
- kd:double
- ki:double
- steeringConstraint:double
- steeringAngle:double
- leftWheelSpeed:double
- rightWheelSpeed:double
- vehicleSpeed:double
- wheelDiameter:double
- steeringAngleConstraint:double
- trackWidth:double

- + Controller()
- calculateErrorOrientation(): double
- calculateErrorVelocity(): double
- implementPID() : double
- calculateSteeringAngle():double
- calculateWheelSpeedRatio():double
- + compute():double
- + ~Controller(void)