

Vehicle

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

- + Vehicle(double,double,double,double)
- + update():double
- + getOrientation():double
- + getVelocity():double
- + updateOrientation():double
- + updateVelocity():double
- + ~Vehicle(void)

Controller

- steeringConstraint:double
- steeringAngle= 0:double
- turningRadius = 0:double
- leftWheelSpeed = 0:double
- rightWheelSpeed = 0:double
- vehicleSpeed = 0:double
- wheelCircumference:double
- trackWidth:double
- wheelBase:double
- acceleration = 1.1:double
- wheelBase:double
- errorThreshold = 0.001:double

- + Controller(double,double,double,double)
- + calculateSteeringAngle(double,double):double
- + calculateVehicleSpeed(double,double):double
- + calculateWheelSpeedRatio():double
- + getVehiclespeed():double
- + getRightWheelSpeed():double
- + getLeftWheelSpeed():double
- + getTurningRadius():double
- + getSteeringAngle():double
- + compute(double,double,double,double):double
- + ~Controller(void)