Group LDA [Loic Barret, Divyam Garg, Aditya Goswami]

AckermannController - desired speed:double = 0 - desired heading:double = 0 - car:Robot - velocity control:PID - heading control:PID + AckermannController(robot:Robot, vel PID:PID, heading PID:PID) + SetDesiredSpeed(double):void + SetDesiredHeading(double):void + Solve(void):void +Plot(std::vector, std::vector, std::string); Robot - track width:double = 1 - wheelbase:double = 1 - wheel size:double = 1 - vehicle speed:double = 0 - vehicle heading:double = 0 - left wheel angle:double = 0 - right wheel angle:double = 0 - left wheel velocity:double = 0 - right wheel velocity:double = 0 + Robot(width:double, base:double, size:double, speed:double, heading:double, left_angle:double, right angle:double, left vel:double, right vel:double) + GetTrackWidth(void):double + GetWheelbase(void):double + GetWheelSize(void):double + GetSpeed(void):double + GetHeading(void):double + GetLeftVel(void):double + GetRightVel(void):double + GetLeftAngle(void):double + GetRightAngle(void): double

PID - kp:double - ki:double - kd:double + PD(prop_gain:double,int_gain:double diff_gain:double) + GetKp(void):double

+ GetKi(void):double

+ GetKd(void):double