## Lane

-polvOrder: int -colour : std::string

-polyCoeff : std::vector<float> -startCoordinates : cv::Point

-averagingCenter: std::vector<int>

-averagingCount: int -currentAveragingIndex : int -status : bool

+Lane()

+~Lane()

+Lane(int, std::string, int) +getStableCenter(int coordinate): int

+setStartCoordinate(cv::Point point): void +getStartCoordinate(): cv::Point

+setStatus(bool): void +getStatus(): bool

+setPolyCoeff(cv::Mat): void

+getPolyCoeff(): std::vector<float>

## LaneDetectionModule

-vellowMin : cv::Scalar -vellowMax : cv::Scalar -grayscaleMin: int

-grayscaleMax: int -videoName: std::string

+LaneDetectionModule() +~LaneDetectionModule()

+undistortImage(cv::Mat&,cv::Mat&): void +thresholdImageY(cv:Mat&,cv::Mat&): void

+thtesholdImageW(cv:Mat&,cv::Mat&): void

+extractROI(cv:Mat&,cv::Mat&): void

+transformPerspective(const cv::Mat& , cv::Mat& , cv::Mat& , cv::Mat& , cv::Mat& ) : void +extractLanes(const cv::Mat&, cv::Mat&, Lane&, int): void+fitPoly(const std::v

+getDriveHeading(Lane&, Lane&, std::string&): double +displayOutput(const cv::Mat&, cv::Mat&, Lane&, Lane&, cv::Mat): void

+detectLane(std::string): bool +getYellowMax(): cv::Scalar +getYellowMin(): cv::Scalar

+setYellowMax(cv::Scalar): void +setYellowMin(cv::Scalar): void +setGrayScaleMin(int): void

+setGrayScaleMax(int): void +getGrayScaleMin(): int +getGrayScaleMax(): int

