MidTerm Project
Lane Detection

Revised Class Diagram

LaneDetector
- rho: double = 1 - theta: double = 1 - input_image: Mat - gray_image: Mat - thresh_image: Mat - test_mage: Mat - roi_image: Mat - edged_image: Mat - lines: vector - threshold: double - left_slope: double - right_slope: double - left_points: vector - right_points: vector
+ readFrame(int):Mat + roiMaskSelection(Mat): Mat + edgeDetector(Mat): Mat + hsvThreshold(Mat): Mat + houghTransform(Mat): vector<Vec4i> + lineFitting (vector<Vec4i>,Mat):Vec4d

LanePredictor
- lane_indicator: string - input_image_p: Mat - frame_p: Mat - turn_predict: string
+hsvThresholdY(Mat): Mat +detectYellow(Mat): Vec4d + plotPolygon(Mat, Vec4d, Vec4d): Mat + wrongLanePredictor(Vec4d): string + predictTurn(Vec4d, Vec4d,Mat): string