

## Package com.\_604robotics.robot2012.vision

### Class Summary

Class	Description
<b>AABB</b>	An Axis-Aligned Bounding Box.
<b>DistanceCalculations</b>	This code does the 2D-to-3D calculations
<b>Img</b>	A simple class for accessing 2d data in a 1d array, with bounds checking.
<b>LinearRegression</b>	Accepts a sequence of pairs of real numbers and computes the best fit (least squares) line $y = ax + b$ through the set of points.
<b>LinearRegression.BackwardsRegressionResult</b>	A regression result that, instead of having y as a function of x has x as a function of y.
<b>LinearRegression.ReggressionResult</b>	A regression result that indicates the line that best matches a given set of data.
<b>Point2d</b>	This represents a Point in 2d space
<b>Point3d</b>	This represents a point in 3d space
<b>Quad</b>	A class representing a Quadrilateral, with four corner points.
<b>Result</b>	This class stores one tile of "is in target" data.
<b>Result.AntiResult</b>	A result indicating that it is unlikely that the target lies in the indicated tile
<b>Result.PlusResult</b>	A result indicating that it is likely that the target lies in the indicated tile
<b>ResultImage</b>	A result image that holds an image of how well pixels match the expected color of the vision target.
<b>Target</b>	This class represents a physical vision Target with four main attributes (x, y, z, angle).
<b>VisionDisp</b>	This class is used to display a camera image and some debug information along with it.
<b>VisionProcessing</b>	The main class for processing camera vision on our 2012 robot.