## turtlebotPerception

- perceptionNode : ros::NodeHandle
- distPub · ros··Publisher
- imagesub : ros::Subscriber
- img : cv::Mat
- markerDetected : bool
- marker x: double
- marker y : double
- marker area : double
- kp : double
- ki : double
- kd : double

- + translation : cv::Mat
- + rotMat : cv::Mat
- + setPerceptionNode(ros::Nodehandle): void
- + setKP(double): void
- + setKD(double): void
- + setKI(double): void
- + calcVel(): geometry msgs::Twist
- + setSubscribers(): void
- + sensorImageData(sensor\_msgs::LaserScan::ConstPtr) : void
- + detectArucoMarker(cv::Mat, double) : bool
- + getMarkerArea(): double