ObjectDetector

- nh : ros::NodeHandle
- it_: image_transport::ImageTransport
- imSub : image transport::Subscriber
- imPub : image transport::Publisher
- IsdSub: ros::Subscriber
- pedPub : ros::Publisher
- pedMarkerPub: ros::Publisher
- imgPr: ImageProcessor
- outMsg_: sensor_msgs::ImagePtr
- cvPtr : cv bridge::CvImagePtr
- imBGR: cv::Mat
- pedMsg: intelli_bot::Pedestrians
- camToWorld: Sophus::Sim3f
- fx: float
- fy: float
- cx: float
- cy: float
- fxi: float
- fvi: float
- cxi: float
- cvi: float
- tfListener : tf::TransformListener
- nav2BasTF: tf::StampedTransform
- id: int
- height: int
- width: int
- + personDetector(const
- sensor msgs::ImageConstPtr&): void
- + getPedMsg(): intelli bot::Pedestrians
- + get3dMarker(): void
- + camPoseCB(const
- Isd slam viewer::keyframeMsgConstPtr): void
- + transformCam2World(geometry msgs::Point):

geometry msgs::Point

PathPlanning

- _length: double
- _breadth: double
- _height: double
- generatedPath:

vector<geometry_msgs::Pose>

- + generatePath(): void
- + setCovArea(double, double): void
- + getPath():

vector<geometry_msgs::Pose>

ImageProcessor

- pedMsg: intelli_bot::Pedestrians
- hog : cv::HOGDescriptor
- imGray: cv::Mat
- imCpy: cv::Mat
- detPedestrian: std::vector<cv::Rect>
- + bBoxDetects(cv::Mat): intelli_bot::Pedestrians + getDetImg(): cv::Mat

Control

- nh: ros:: NodeHandle
- travPath: vector<geometry msgs::Pose>
- currPose: geometry msgs::Pose
- cmdVel: geometry msgs::Twist
- conVel: ros::Publisher
- takeOffPub: ros::Publisher
- landPub: ros::Publisher
- currPoseSub: ros::Subscriber
- emptyMsg: std msgs::Empty
- landFlag: bool
- dt: double
- seconds_prev: double
- pidX: PID
- pidY: PID
- pidYaw: PID
- + getTargetPos(): int
- + computeStep(): void
- + currPoseCallback(const

nav_msgs::Odometry::ConstPtr): void

- + quat2RPY(geometry msgs::Pose):
- geometry msgs::Point

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PID

- kp:double
- ki:double
- kd:double
- prevError:double
- dt:double
- integralError:double
- setPoint:double
- ctrlOp:double
- + compute(const double, const double): double
- + setKpKiKd(const double, const double, const
- double): void
- + setDt(const double): void
- + getKp(): double
- + getKi(): double
- + getKd(): double
- + getDt(): double