## **TurtlebotMover**

- + nh: ros::NodeHandle + pubVel: ros::Publisher + msg geometry\_msgs::Twist
- + sub: ros::Subscriber
- + TurtlebotMover()
- + ~TurtlebotMover
- + moveRobot(): void + changeDirection(): void
- + detectAnomaly(): void

## **AnomalyDetector**

+ nh: ros::NodeHandle + pubVel: ros::Publisher + msg geometry\_msgs::Twist

+ sub: ros::Subscriber + isAnomaly: bool + obstacleThresh: bool

+ imgArray: std::vector<cv::Mat>

+ convertedImg: cv::Mat

+ AnomalyDetector()

+ ~AnomalyDetector

+ processImage(cv::Mat):void

+ getObjectLocation: cv::Rect

+ getIsAnomaly(): bool

+ setIsAnomaly(bool): void

## **ObstacleAvoidance**

+ nh: ros::NodeHandle + pubVel: ros::Publisher + msg geometry\_msgs::Twist

+ sub: ros::Subscriber + isObstacle: bool

+ ObstacleAvoidance()

+ ~ObstacleAvoidance

+ checkObstacle():bool

+ scanEnvCallback(const sensor\_msgs::LaserScan::ConstPtr& msg)