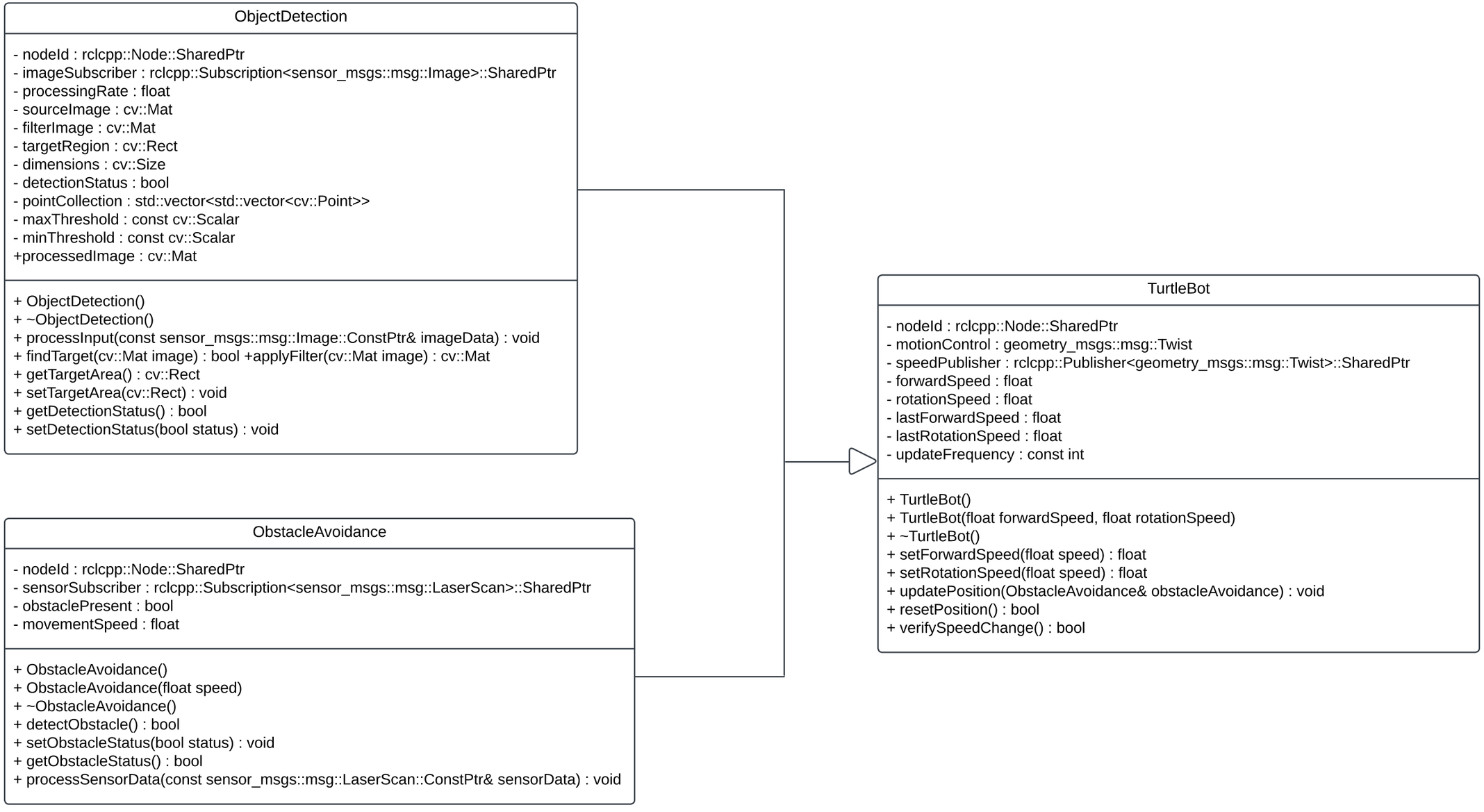
ObjectDetection
- nodeId : rclcpp::Node::SharedPtr
- imageSubscriber : rclcpp::Subscription<sensor_msgs::msg::Image>::SharedPtr
- processingRate : float
- sourceImage : cv::Mat
- filterImage : cv::Mat
- targetRegion : cv::Rect
- dimensions : cv::Size
- detectionStatus : bool
- pointCollection : std::vector<std::vector<cv::Point>>
- maxThreshold : const cv::Scalar
- minThreshold : const cv::Scalar
+processedImage : cv::Mat
+ ObjectDetection()
+ ~ObjectDetection()
+ processInput(const sensor_msgs::msg::Image::ConstPtr& imageData) : void
+ findTarget(cv::Mat image) : bool +applyFilter(cv::Mat image) : cv::Mat
+ getTargetArea() : cv::Rect
+ setTargetArea(cv::Rect) : void
+ getDetectionStatus() : bool
+ setDetectionStatus(bool status) : void
TurtleBot
- nodeId : rclcpp::Node::SharedPtr
- motionControl : geometry_msgs::msg::Twist
- speedPublisher : rclcpp::Publisher<geometry_msgs::msg::Twist>::SharedPtr
- forwardSpeed : float
- rotationSpeed : float
- lastForwardSpeed : float
- lastRotationSpeed : float
- updateFrequency : const int
+ TurtleBot()
+ TurtleBot(float forwardSpeed, float rotationSpeed)
+ ~TurtleBot()
+ setForwardSpeed(float speed) : float
+ setRotationSpeed(float speed) : float
+ updatePosition(ObstacleAvoidance& obstacleAvoidance) : void
+ resetPosition() : bool
+ verifySpeedChange() : bool
ObstacleAvoidance
- nodeId : rclcpp::Node::SharedPtr
- sensorSubscriber : rclcpp::Subscription<sensor_msgs::msg::LaserScan>::SharedPtr
- obstaclePresent : bool
- movementSpeed : float
+ ObstacleAvoidance()
+ ObstacleAvoidance(float speed)
+ ~ObstacleAvoidance()
+ detectObstacle() : bool
+ setObstacleStatus(bool status) : void
+ getObstacleStatus() : bool
+ processSensorData(const sensor_msgs::msg::LaserScan::ConstPtr& sensorData) : void