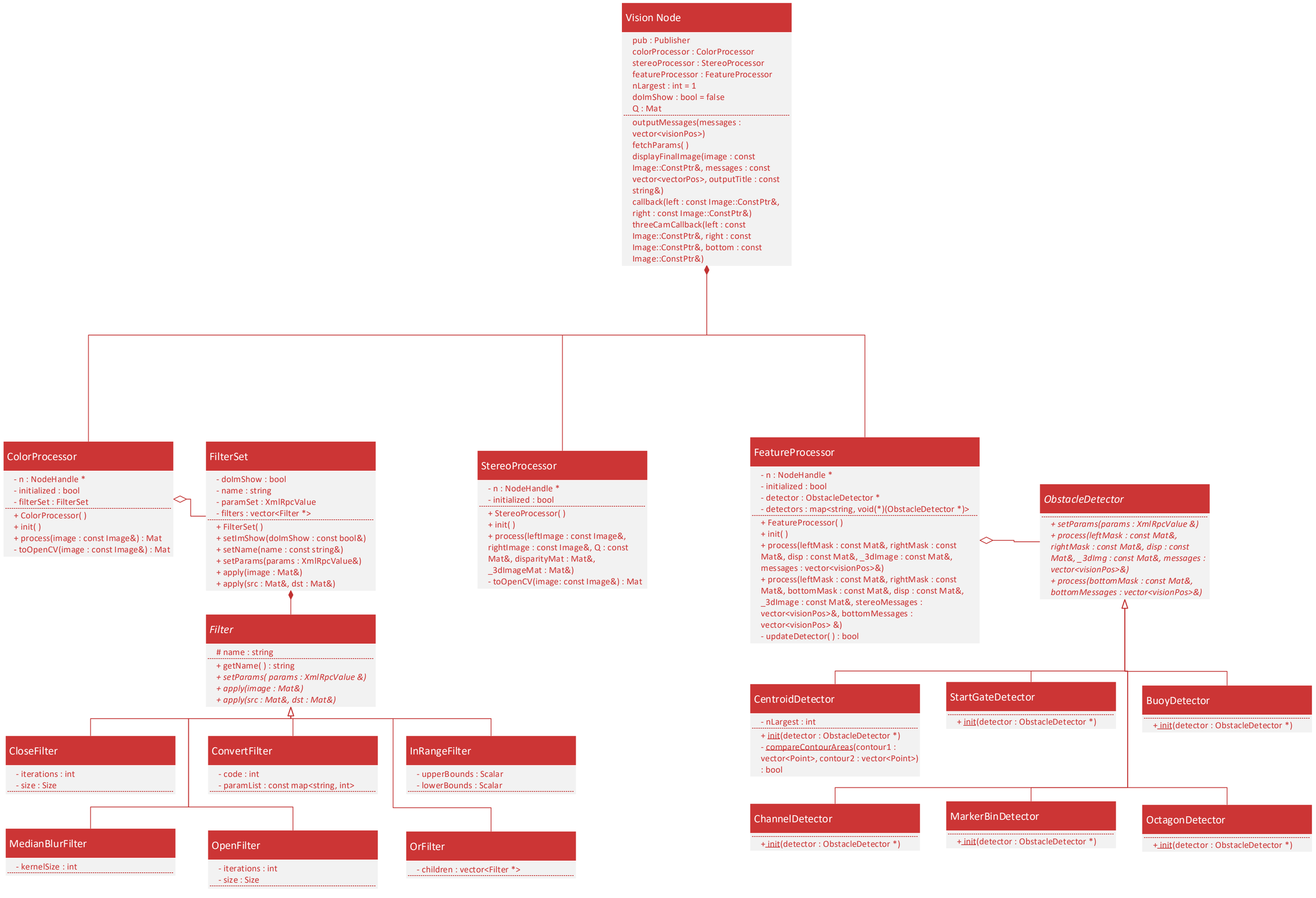
Vision Node
pub : Publisher
colorProcessor : ColorProcessor
stereoProcessor : StereoProcessor
featureProcessor : FeatureProcessor
nLargest : int = 1
doImShow : bool = false
Q : Mat
outputMessages(messages : vector<visionPos>)
fetchParams( )
displayFinalImage(image : const Image::ConstPtr&, messages : const vector<vectorPos>, outputTitle : const string&)
callback(left : const Image::ConstPtr&, right : const Image::ConstPtr&)
threeCamCallback(left : const Image::ConstPtr&, right : const Image::ConstPtr&, bottom : const Image::ConstPtr&)
ColorProcessor
- n : NodeHandle *
- initialized : bool
- filterSet : FilterSet
+ ColorProcessor( )
+ init( )
+ process(image : const Image&) : Mat
- toOpenCV(image : const Image&) : Mat
FilterSet
- doImShow : bool
- name : string
- paramSet : XmlRpcValue
- filters : vector<Filter *>
+ FilterSet( )
+ setImShow(doImShow : const bool&)
+ setName(name : const string&)
+ setParams(params : XmlRpcValue&)
+ apply(image : Mat&)
+ apply(src : Mat&, dst : Mat&)
StereoProcessor
- n : NodeHandle *
- initialized : bool
+ StereoProcessor( )
+ init( )
+ process(leftImage : const Image&, rightImage : const Image&, Q : const Mat&, disparityMat : Mat&, _3dImageMat : Mat&)
- toOpenCV(image: const Image&) : Mat
FeatureProcessor
- n : NodeHandle *
- initialized : bool
- detector : ObstacleDetector *
- detectors : map<string, void(*)(ObstacleDetector *)>
+ FeatureProcessor( )
+ init( )
+ process(leftMask : const Mat&, rightMask : const Mat&, disp : const Mat&, _3dImage : const Mat&, messages : vector<visionPos>&)
+ process(leftMask : const Mat&, rightMask : const Mat&, bottomMask : const Mat&, disp : const Mat&, _3dImage : const Mat&, stereoMessages : vector<visionPos>&, bottomMessages : vector<visionPos> &)
- updateDetector( ) : bool
Filter
name : string
+ getName( ) : string
+ setParams(params : XmlRpcValue &)
+ apply(image : Mat&)
+ apply(src : Mat&, dst : Mat&)
ObstacleDetector
+ setParams(params : XmlRpcValue &)
+ process(leftMask : const Mat&, rightMask : const Mat&, disp : const Mat&, _3dImg : const Mat&, messages : vector<visionPos>&)
+ process(bottomMask : const Mat&, bottomMessages : vector<visionPos>&)
CloseFilter
- iterations : int
- size : Size
ConvertFilter
- code : int
- paramList : const map<string, int>
InRangeFilter
- upperBounds : Scalar
- lowerBounds : Scalar
MedianBlurFilter
- kernelSize : int
OpenFilter
- iterations : int
- size : Size
OrFilter
- children : vector<Filter *>
CentroidDetector
- nLargest : int
+ init(detector : ObstacleDetector *)
- compareContourAreas(contour1 : vector<Point>, contour2 : vector<Point>) : bool
StartGateDetector
+ init(detector : ObstacleDetector *)
BuoyDetector
+ init(detector : ObstacleDetector *)
ChannelDetector
+ init(detector : ObstacleDetector *)
MarkerBinDetector
+ init(detector : ObstacleDetector *)
OctagonDetector
+ init(detector : ObstacleDetector *)