scan\_detection.launch

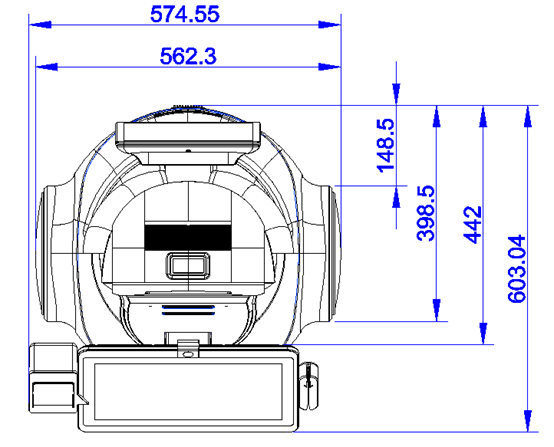
This launch file can create a caution area shape of quadratic function and detect the obstacle in the caution area.

max\_f : the parameter of the max range front of the laser center . (purple)

theta : the angle you want to start detection

max\_d : the range of the caution area at the angle.(red line)

continues\_points : how many continues points that we define to be an obstacle to make robot stop .



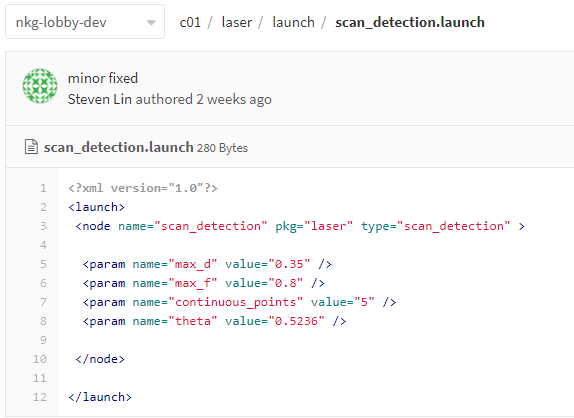
max\_d

max\_f

theta

detect\_start

The launch file can be found under the laser package and under the launch folder.



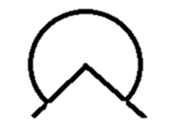
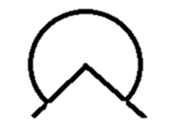
<http://crgitlab.eastasia.cloudapp.azure.com/allentsai/c01/blob/6729b48882f2b0e300e209a866571f95e1ed7d86/laser/launch/scan_detection.launch>

And the cpp file is also under the laser package and under the src folder

<http://crgitlab.eastasia.cloudapp.azure.com/allentsai/c01/blob/6729b48882f2b0e300e209a866571f95e1ed7d86/laser/src/scan_detection.cpp>



In the cpp file we use these two variable to get the start points from laser data.



y

x

x

y

theta

I rotate the axis xy -90 degree like the figure above and determine how many points between the angle I start detect and the angle\_min. Then we will take the laser data start from scan\_msg[detec\_start] .