

# S#2 :: Obstacle Avoidance

Monday, 12 July 2021 10:49 AM

## Lidar Sensor Data Processing

A#1  $\Rightarrow [0 \ 2 \ inf \ inf \ 0]$

- Area Division

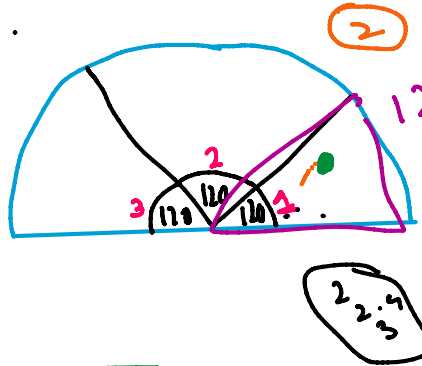
- Data Pre-Processing:

$\rightarrow \min(A\#1, 100) \Rightarrow 100$

$mA = \min(A\#1)$

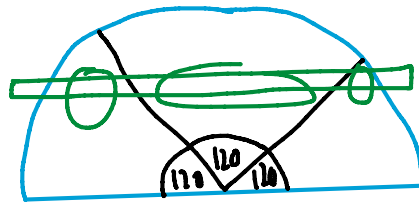
$\min(mA, 100)$

$\min[0 \ 2 \ 1 \ 3 \ inf \ inf](120)$



$360$   
 $A\#1 = 0:120$   
 $A\#2 = 120:240$   
 $A\#3 = 240:360$   
 $L.S = inf$

## Logic



Case # 1 : Straight Moving

Case # 2 : Taking Left Turn

Case # 3 : Taking Right Turn

Case # 4 : Stop and Turn Full

$C\#4$   $\left\{ \begin{array}{l} A1 = 100 \\ A2 = 100 \\ A3 = 100 \end{array} \right.$

$A1 = 100$   
 $A2 = 100$   
 $A3 = 2.5$   $\rightarrow C\#3$

$A1$   
 $A2$   
 $A3$   
 $A1 = 1.5$   
 $A2 = 100$   
 $A3 = 100$   $\rightarrow C\#2$