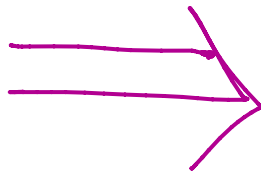
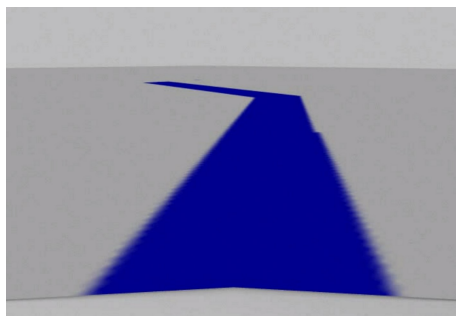


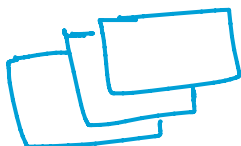
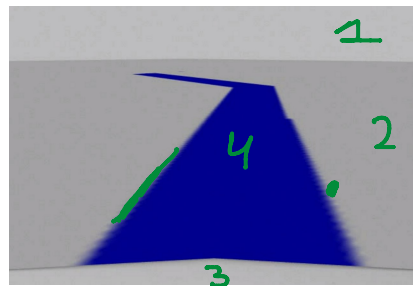
S#3 Line Following Behavior

Monday, 12 July 2021 10:57 AM

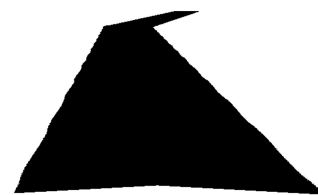
Segmentation → Boundaries Extraction → Mid Point Extraction → Control algorithm



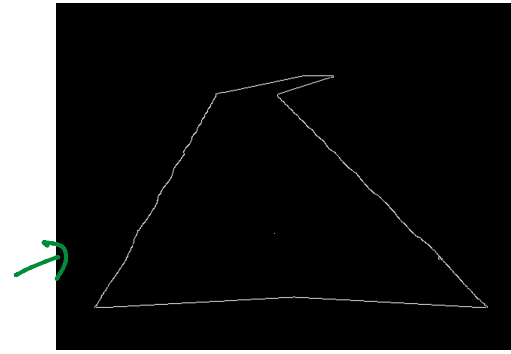
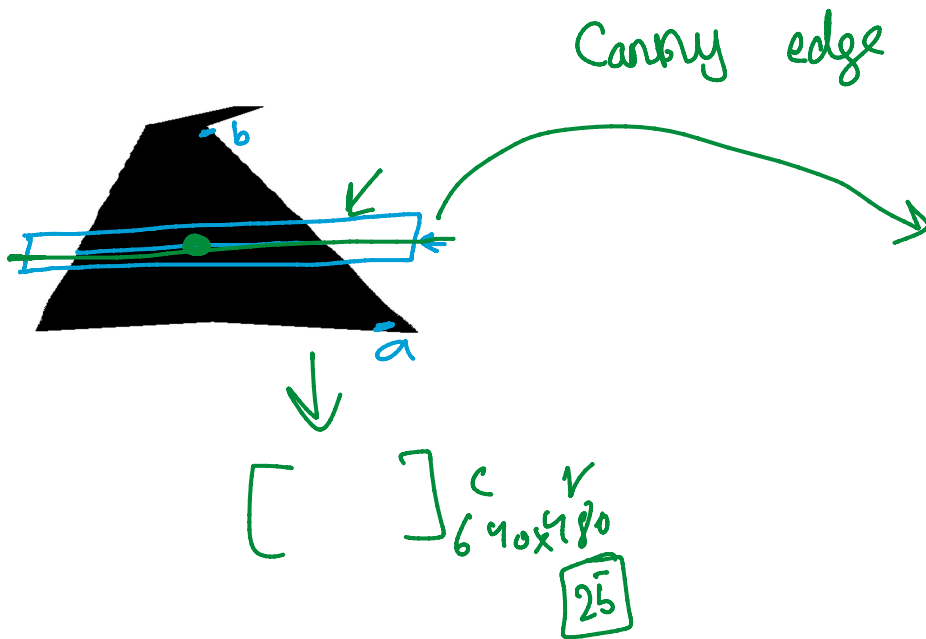
Segmentation



light = [100, 100, 100]
dark = [200, 200, 200]



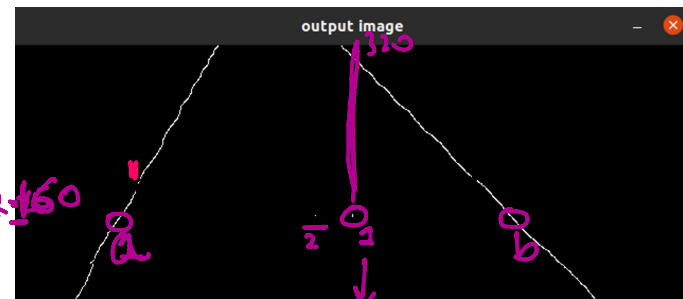
Boundaries Extraction



Mid Points Extraction

Line Mid point

- Multi Value Problem : $R=160$.
- $\rightarrow 2 = [40, 120]$
- $3 = [40, 41, 120] / [40, 120, 121]$
- $4 = [40, 41, 120, 121]$
- $5 =$



$\begin{bmatrix} 0.00255195 \end{bmatrix}$ Frame Mid Point $\frac{640}{2} = 320 \rightarrow c$



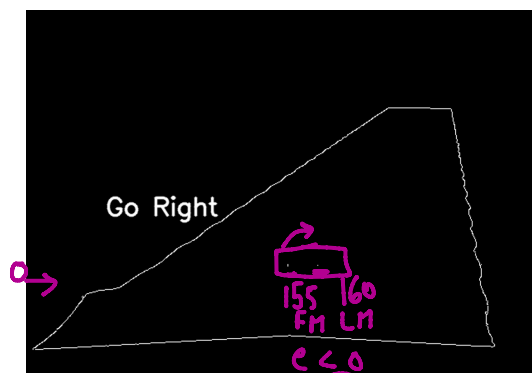
Control algorithm

Proportional Controller

$error = F.M - L.M.$

$e > 0$
left

$e < 0$
Right





Right

