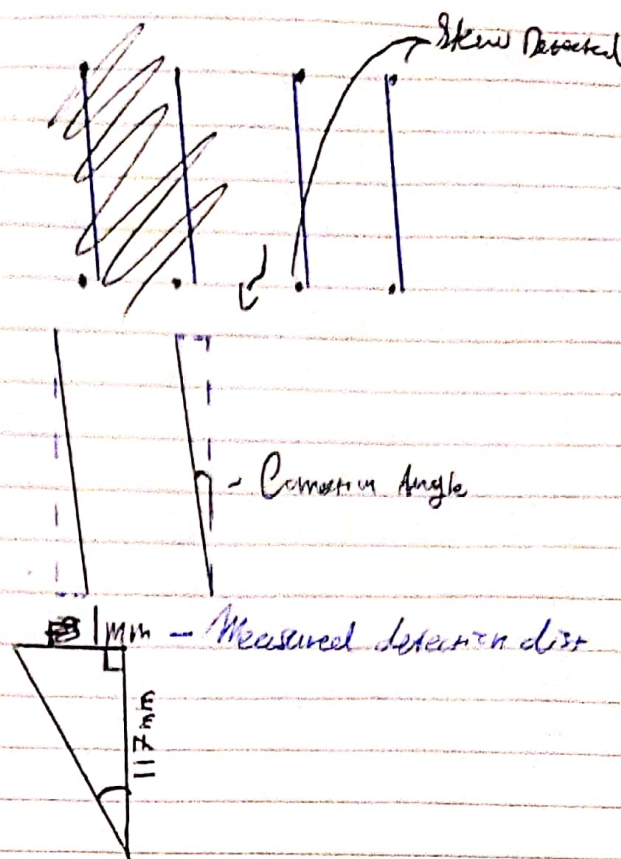
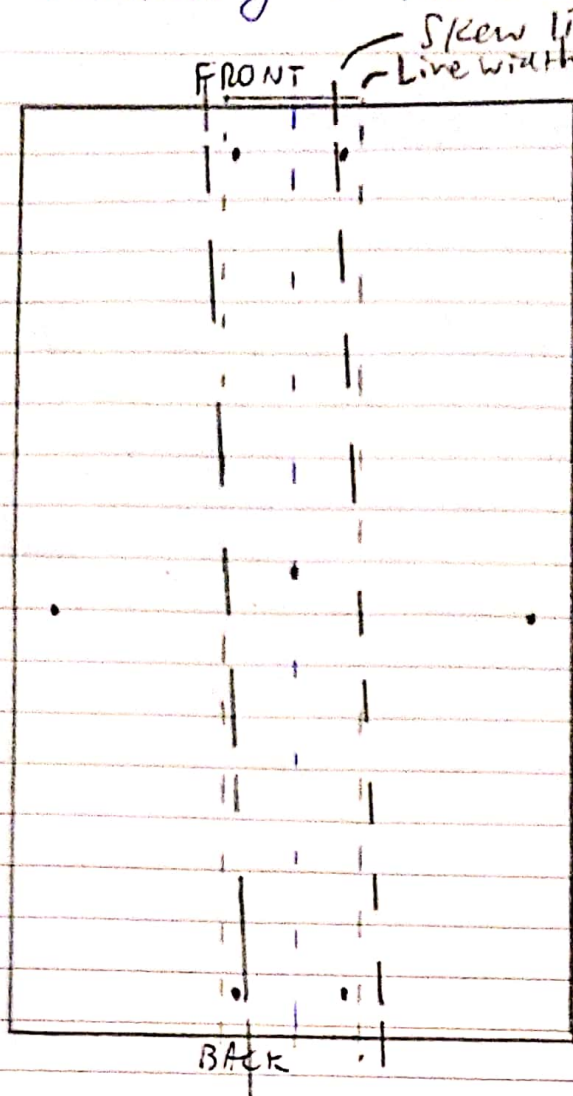


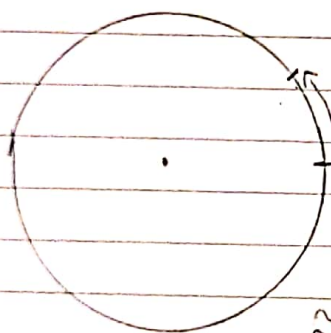
Trigonometry of Light sensors

15, 08, 23



$$\Delta \text{Correction} = \arctan\left(\frac{1}{117}\right) = 0.4895^\circ$$

Pivot Circle



$$0.4895^\circ; 0.0085462043 \text{ rad}$$

- We Need to correct by 0.489° at a skew.
- Calculate encoder pulses

$$\begin{aligned} \approx 0.48^\circ &= \frac{1}{735.15} \text{ rev} = \frac{1}{735.15} \cdot 354.277 \text{ mm about circumference} \\ &= 0.4819 \text{ mm about circumference} \\ &= \frac{1}{735.15} \cdot 228 = 0.31 \text{ pulses} \end{aligned}$$

• Turning one pulse to correct skew will overshoot the angle by

$$\underline{322.58^\circ}$$