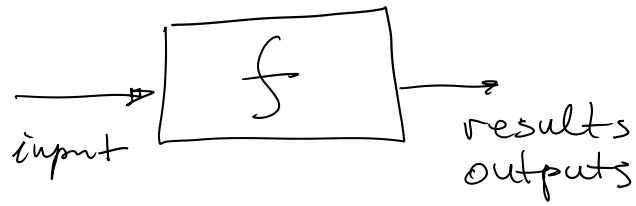


Module #7: Functions, Images, Programming etc.

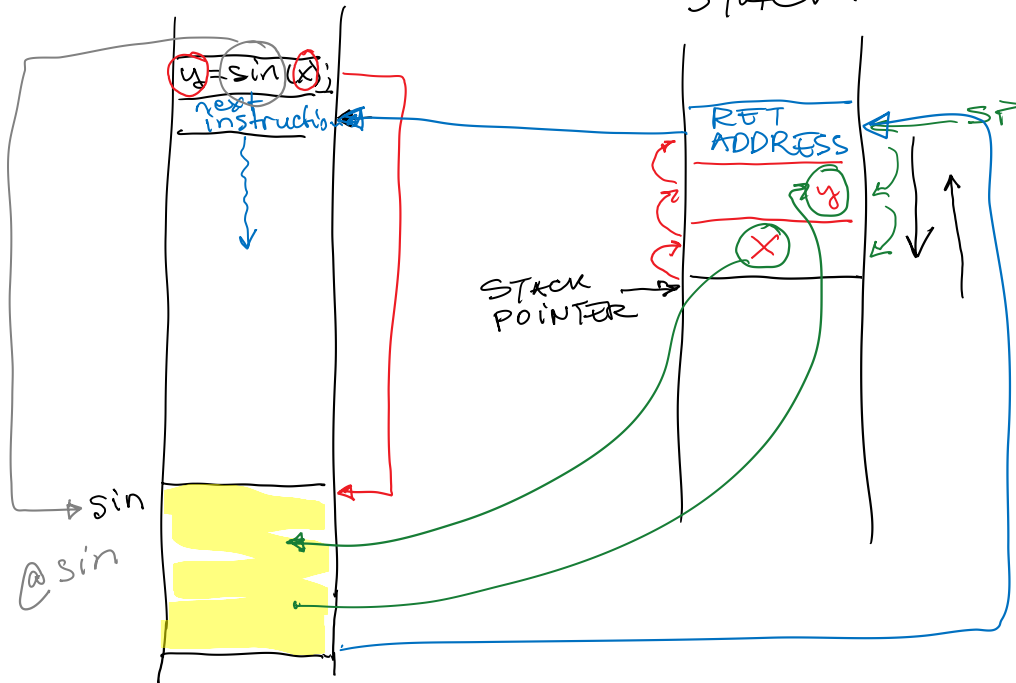
$$y = f(x)$$

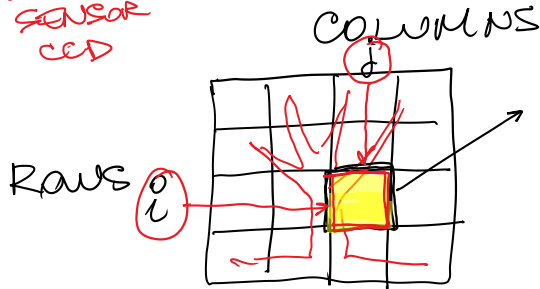
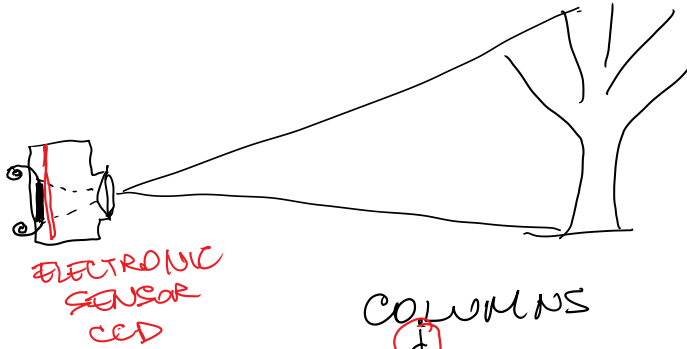
↑ ↑
output input



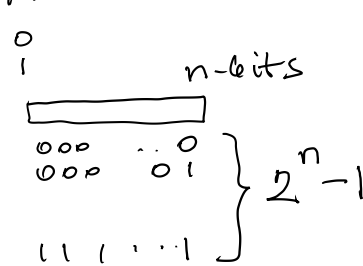
$$\frac{\pi}{4} \rightarrow \sin \rightarrow \frac{\sqrt{2}}{2} = 0.707$$

STACK





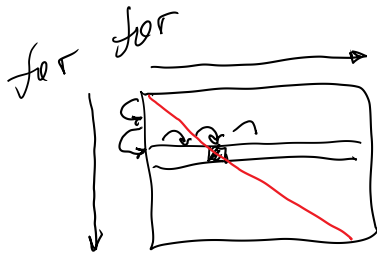
PICTURE ELEMENT - PIXEL



$$1 \text{ BYTE} = 8 \text{ bits}$$

$$2^8 - 1 = 256 - 1 = 255$$

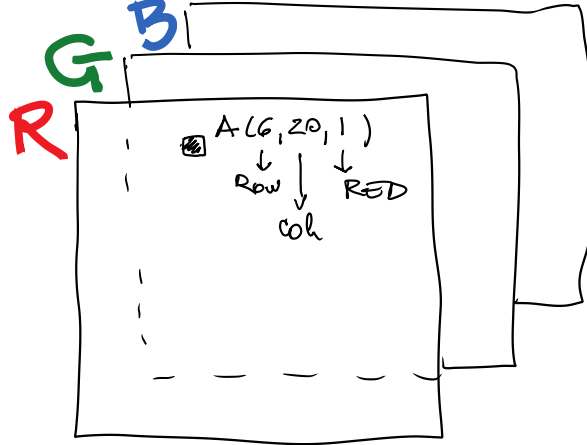
PIXEL
0 ÷ 255



for $i = 1:N$
for $j = 1:M$



end
end

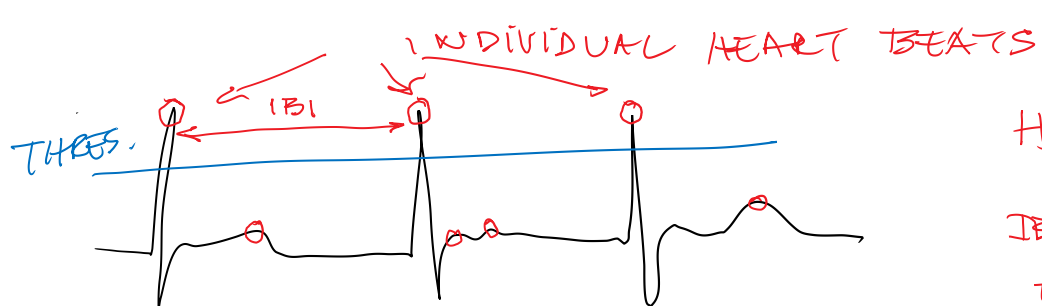


$A(i, j, k)$

↓
Row

↓
Col

↓
Component
(R/G/B)
1 2 3

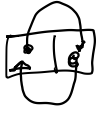
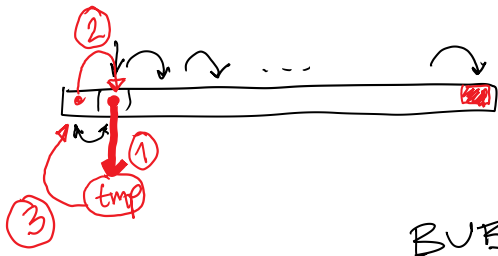


$$HR = \frac{60}{IBI}$$

$$IBI = 1s$$

$$HR = \frac{60}{1s} = 60 \text{ BPM}$$

$$0.5 \quad \frac{60}{0.5} = 120 \text{ BPM}$$



BUBBLE SORT

