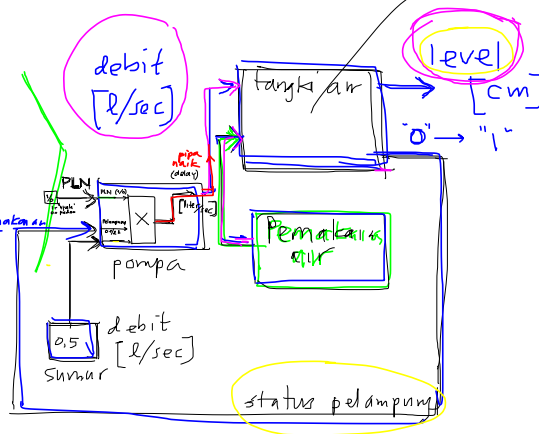
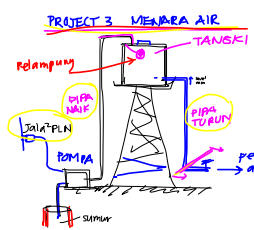


$$\frac{y-1}{0-1} = \frac{x-(h-20)}{(h-5)-(h-20)}$$

$$\frac{y-1}{-1} = \frac{x-h+20}{15}$$

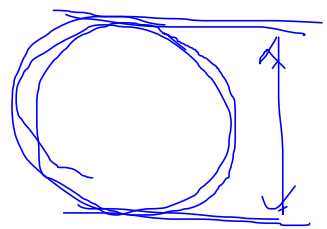
$$15y-15 = -x+h-20$$

$$15y = -x+h-5$$

$$y = -\frac{1}{15}x + \frac{h-5}{15}$$

if level $\leq (h-20)$
 $y = 1$
 else if level $\geq (h-5)$
 $y = 0$
 else
 $y = -\frac{1}{15}x + \frac{h-5}{15}$
 end

check: $x = h-20 \rightarrow y = -\frac{1}{15}(h-20) + \frac{h-5}{15} = 1$
 $x = h-5 \rightarrow y = -\frac{1}{15}(h-5) + \frac{h-5}{15} = 0$



h dan pengamatan

Debit :

* Dari pompa, (dari Kosong)

Misalnya Start pompa : jam 10.00
Penuh : jam 10.40

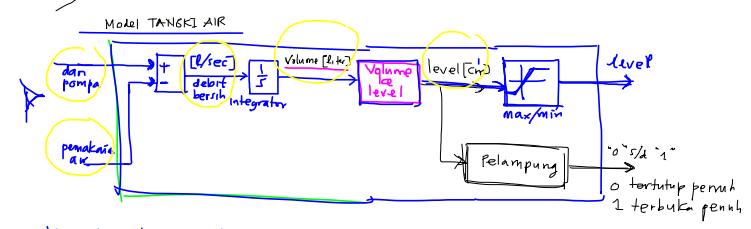
$$V = 1100 \text{ liter}$$

$$\text{debit} = \frac{1100}{40 \times 60} \text{ liter/sec}$$

* Pengeluaran keran :

Misalnya botol bekar 600 ml = 0,6 l
diisi dari Kosong s/d penuh
selama 10 sec.

$$\text{debit} = \frac{0,6}{10} \text{ liter/sec}$$



Fungsi Volume to level
 Misalnya kapasitas tangki : V liter
 Diameter tangki = D cm
 Tinggi tangki = h cm $\rightarrow$ level max
 volume maximum = luas alas * tinggi

$$V = \pi(D/2)^2 * h \text{ cm}^3$$

$$V = \frac{\pi(D/2)^2 * h}{1000} \text{ liter}$$

Jika volume air yang masuk = V liter
 maka
$$h = \frac{1000 V}{\pi(D/2)^2} \text{ [cm]}$$

$$h = \left[\frac{1000}{\pi(D/2)^2} \right] V \text{ [cm]} \rightarrow \text{Volume to level}$$

$$\rightarrow \left[\frac{1000}{\pi(D/2)^2} \right] \rightarrow \text{Transfer Function}$$