

$y = f(x)$
if $x \leq 110$
 $y = 1$
elseif $x \geq 115$
 $y = 0$
else
 $y = -\frac{1}{5}x + 23$
end

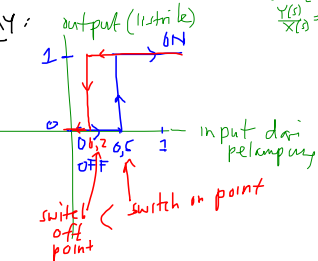
$$\frac{y-1}{0-1} = \frac{x-110}{115-110}$$

$$\frac{y-1}{-1} = \frac{x-110}{5}$$

$$y-1 = -\frac{1}{5}x + 22$$

$$y = -\frac{1}{5}x + 23$$

RELAY:



Volume [liter] to Level [cm] $1 \text{ l} = 1000 \text{ cm}^3$

volume = $\pi \left(\frac{D}{2}\right)^2 \cdot h \text{ cm}^3$

$V = \frac{\pi \left(\frac{D}{2}\right)^2 \cdot h}{1000} \text{ liter}$

$1000V = \pi \left(\frac{D}{2}\right)^2 \cdot h$

$h = \frac{4000V}{\pi D^2} \text{ [cm]}$

Project 2

* Pengukuran lapangan

- Den motor & den $h \pm sh$ $\pm sh \uparrow$
- Data lapangan: d_1 dan d_2 (lebar dan posisi tidur)
- M = Massa motor + badan pengendara

Pilih kecepatan motor $5 \text{ km/jam} < v < 15 \text{ km/jam}$

(1) D41111ABC $\rightarrow B = A, BC \text{ Nsec/m}$

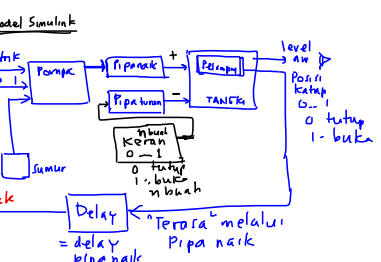
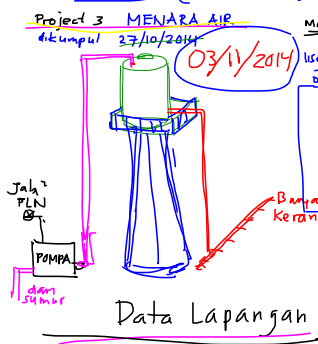
(2) D41111XYZ $\rightarrow K = X, YZ \text{ N/m}$

* Percobaan kombinasi

B tetap & $K = XYZ \text{ N/m}$ dan $K = 0,0XYZ \text{ N/m}$

K tetap & $B = ABC \text{ Nsec/m}$ dan $B = 0,0ABC \text{ Nsec/m}$

* Carilah kombinasi B dan K yang paling "realistik" (cocok dengan keadaan sebenarnya)



* Volume dan diameter/tinggi tangki

* Debit Pompa $\rightarrow$ liter/sec.

(nyatakan pompa dari tangki/krany sampai penuh)

Misalnya: 1100 liter dalam 45 menit

Debit = $\frac{1100 \text{ liter}}{45 \times 60 \text{ sec}} = \dots$

* Debit Keran: isi botol : 1 liter berapa seconds:

* Delay: $\Rightarrow$ Pipa naik: start pompa sampai air tiba di atas tangki

$\Rightarrow$ Pipa turun $\approx \frac{1}{2}$ delay pipa naik