

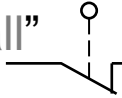
päikesesirmi juhtimine



“Pole ülal”



“Pole all”



piirasendid

nt. I 01
nt. I 02

nt. I 04

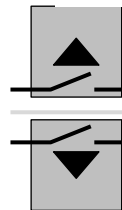
nt. I 03



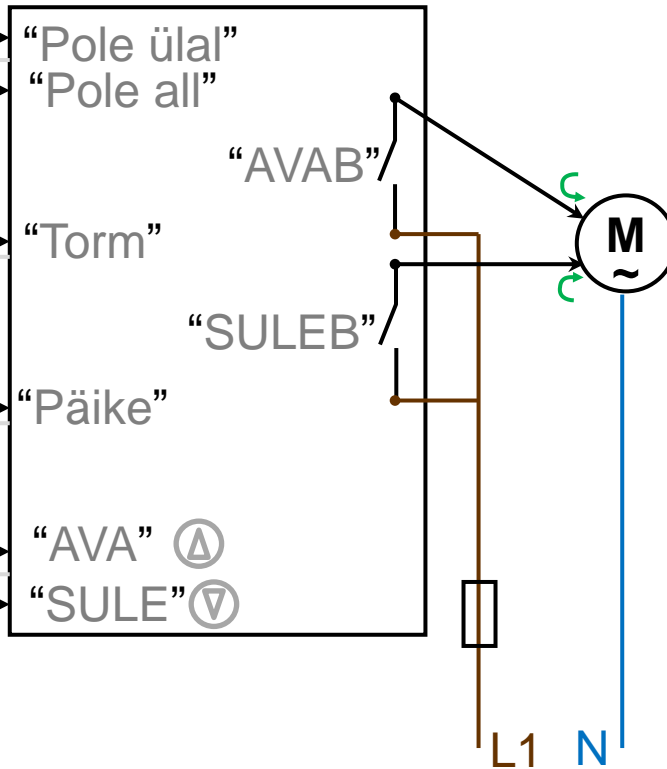
tuulekiirus



valgustugevus



käsijuhtimine



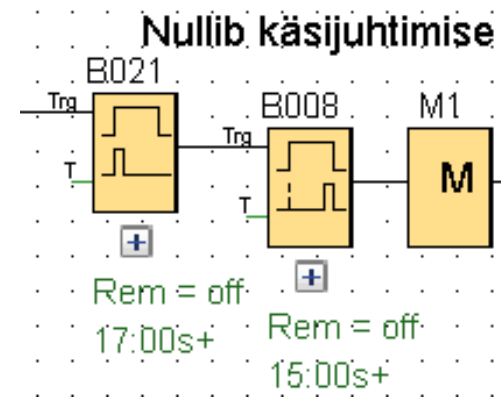
AVA & $\overline{\text{SULE}}$ V TORM) & Pole_ülal = AVAB
 (SULE V Päike) & $\overline{\text{AVA}}$ & Torm & Pole_all = SULEB

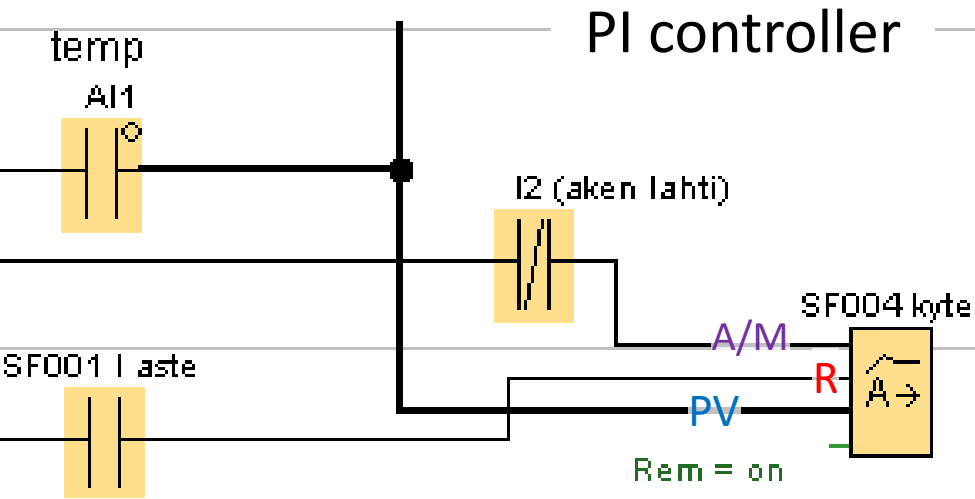
Päikesesirmi algoritmi osad

- TORM signaal ei lakka kohe tuulekiiruse vaibumise (viide nt 15 min)
Kui on TORM-i signaal, siis aktiveeritakse sirmi eest ära keeramine (AVAB=1) kuni on täielikult AVATUD. Käsijuhtimise režiim on keelatud.

Kui ei ole TORM:

- 1) Käsijuhtimisnupud aktiveerivad käsijuhtimise režiimi, mis katkestab PÄIKEse anduri arvestamise ja kestab ## minutit pärast viimast nupuvajutamist või inimese kohalolu ruumis;
- 2) PÄIKEse (liigkiirguse) andur aktiveerib sirmi ettekeeramise (SULEB=1) kuni täieliku sulgemiseni (Avatus=0), kui ei ole (Käsijuhtimine ja TORM);
- 3) Automaatne ettekeeramine (Sulgemine) lõppeb, kui on täielikult SULETUD või Avamine on aktiveeritud (Ava);
- 4) Surunupuga avamine (AVAB) kestab kuni nupp on aktiveeritud ja ei ole täielikult AVATUD;
- 5) Surunupuga ettekeeramine (SULEB) kestab kuni nupp on aktiveeritud;



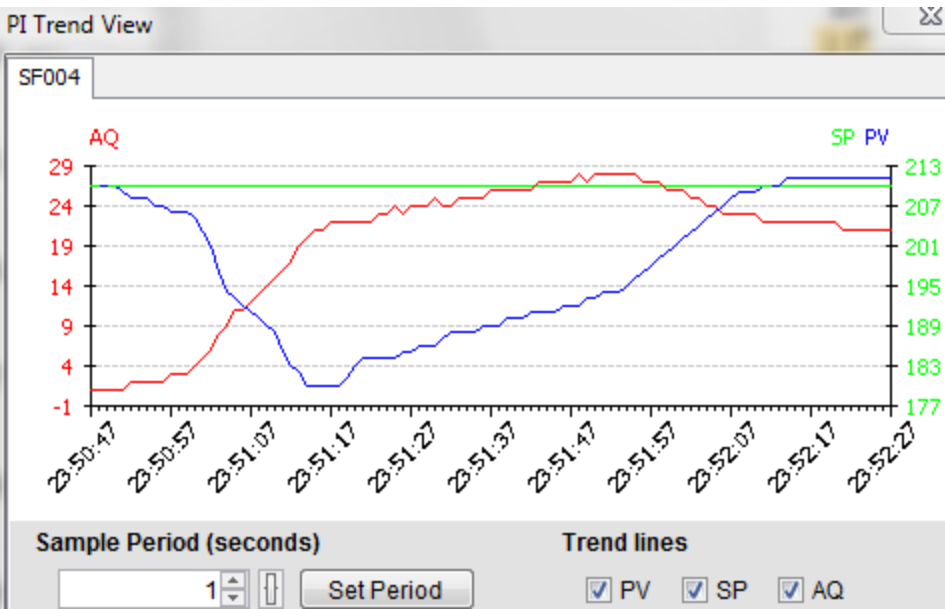


SF004 kyte [PI controller]

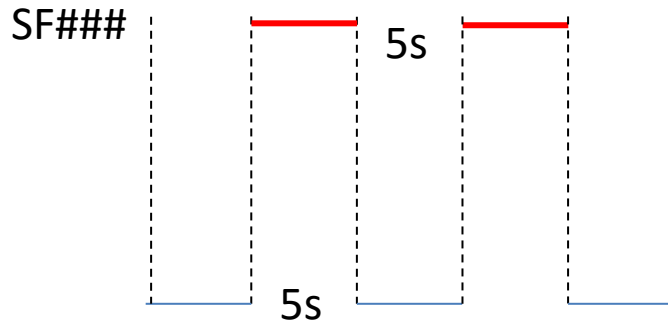
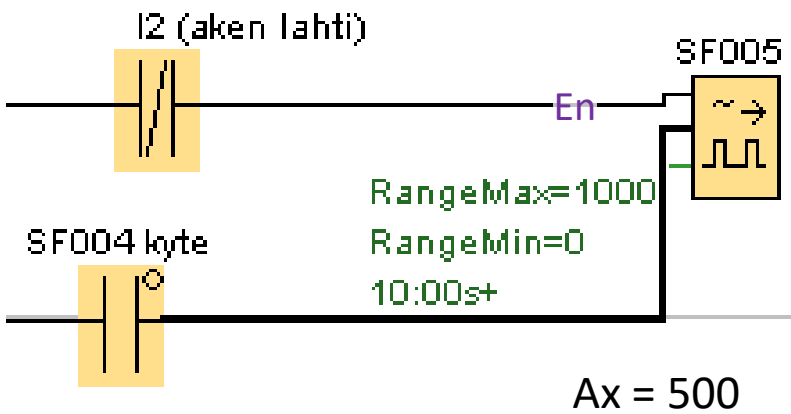
Parameter	Comment
Sensor	
Sensor:	0 ... 10 V
Analog settings	
Measurement Range	
Minimum:	0
Maximum:	1000
Parameter	
Gain:	1.00
Offset:	0
Output	
Set value (SP)	
	210 Reference
Manual output (Mq)	
	0 Reference
Parameter:	
Parameter set:	Temperature fast
Controller amplification (KC):	0.50
<input checked="" type="checkbox"/> Integration time (TI):	0 : 30 Minutes (m:s)
Direction (Dir):	<input checked="" type="radio"/> Upwards (+) <input type="radio"/> Downwards (-)

AQ 0...1000

PI Trend View



PWM



SF005 [PWM]

Parameter Comment

Sensor: No sensor

Analog settings

Measurement Range

Minimum: 0

Maximum: 1000

Parameter

Gain: 1.00

Offset: 0

Range

Range Min: 0

Range Max: 1000

Periodic time

10 : 0 Seconds (s:1/1...)

Reference

OK Cancel

Ruumi soojenemise simuleerimine kontrollis

$$(t_{\tilde{o}} - t_{v\tilde{o}}) * H * d\tau = -C_H * dt$$

$$\frac{dt}{d\tau} = -\frac{H}{C_H} (t_{\tilde{o}} - t_{v\tilde{o}}) + \frac{P}{C_H}$$

$t_{\tilde{o}}$ – siseõhu temperatuur

$t_{v\tilde{o}}$ – välisõhu temp.

H – hoone soojuserikaad [W/K]

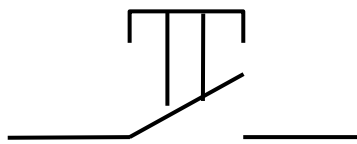
C_H – hoone soojuserimahtuvus [J/K]

Takti ts kaupa arvutamine:

$$t_{\tilde{o}}(k) = t_{\tilde{o}}(k-1) + ts \left(-\frac{H}{C_H} (t_{\tilde{o}}(k-1) - t_{v\tilde{o}}(k-1)) + \frac{P}{C_H} \right)$$

Hoovivalguse automaatjuhtimise näide diskreetse loogikaga

Valgustus peab süttima sõltuvalt andurite ja käsitsi lülitamise lüliti aktiveerimisest



“Põlema” nupplüliti (NO) nt.

andurid:

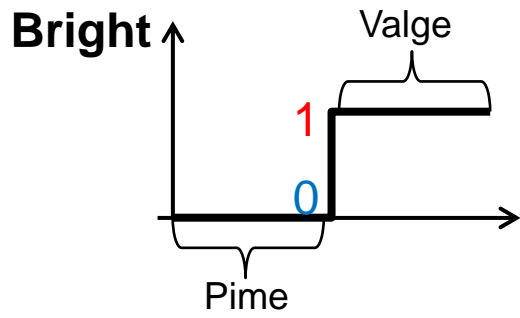
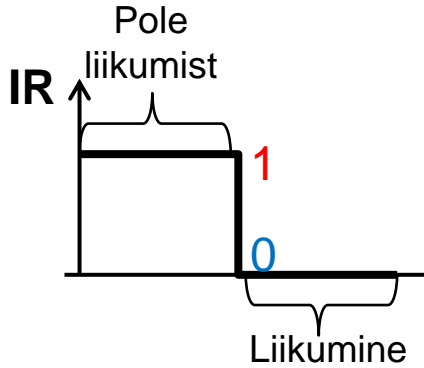


Liikumisandur (NC) nt. I06



Värava kasutamise kontakt (NO) nt. I03

Valgustugevuse andur (NO – valges lülitub kinni) nt. I04



Valgustit lülitab kontrolleri väljund (väljundisse ühendatud relee)

influence the
sensor system:

object emitting

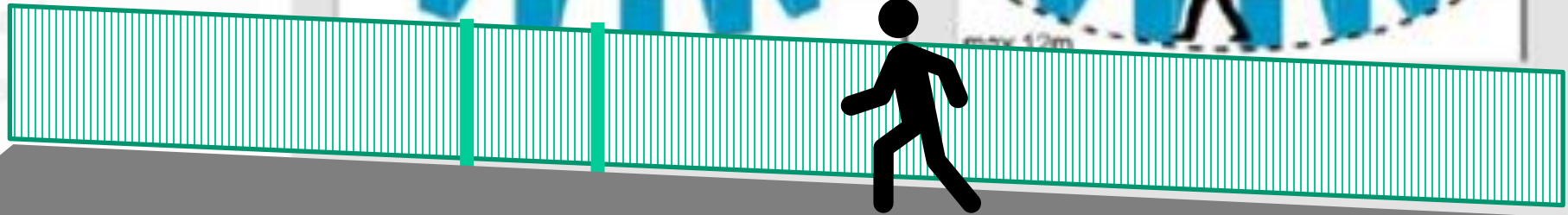
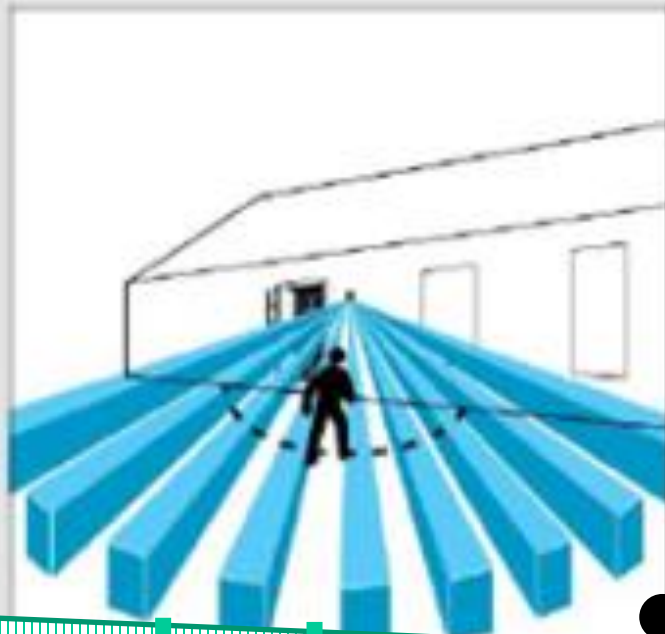
difference between
emitting radiation and
background, where the
difference is greater,
the greater the difference,
the greater the difference,

the receiver

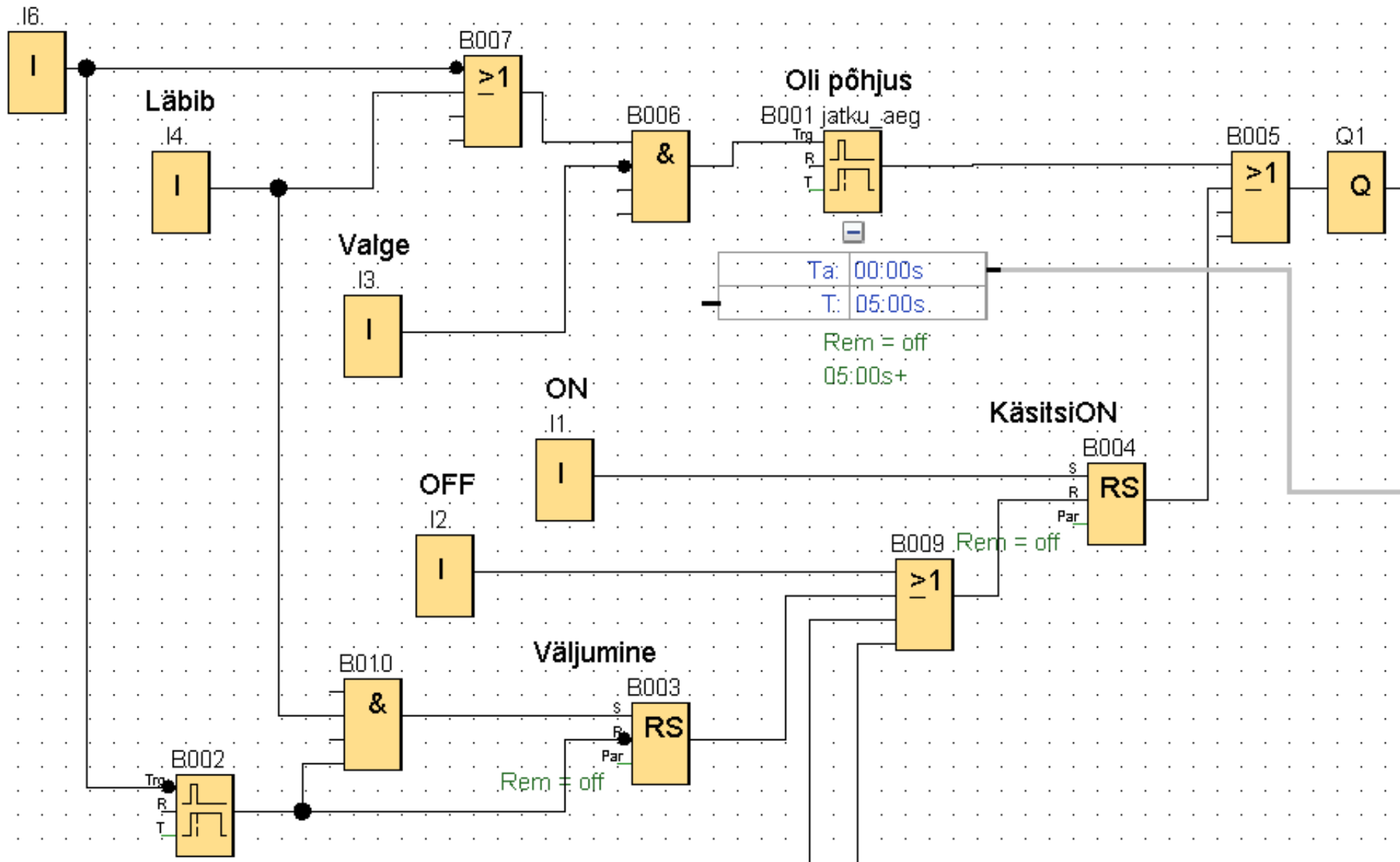
distances

etc.

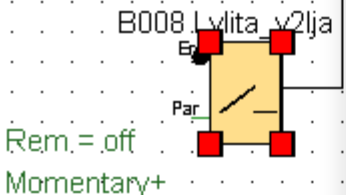
the detection



Hoovivalgustuse juhtimine (poolik)



Inimliides, sekkumisvõimaluste lisamine



Lülitatav ekraanil ja selle veebivaates

LOGO! B008 | Softkey

Parameter Comment

Parameter _____

Block name: Lylita_v2lja

Type

Switch

Momentary Pushbutton

Initial Status

On

Off

Modify Parameter

BN 8 PN 0

Current Value Off

New Value Off

OK Cancel

Off

4:00s

0.00

ESC

Message Destination

LOGO! Display LOGO! TD Both Web server

Message texts plokis

LOGO! Data Table

ID	Address	Type	Value	New Value
1	V0.0	Bit:	2#0	
2				

Lyli v2lja

NI1

V0.0

Riistvaras saab parameetri muutmise režiimi ESC-i hoides

Kui Taimeril on nimi, saab ka aega muuta RUN režiimis

Display-I Program -> Set Param

Veebiliidese lisamine

Uuri LOGO Web Editor-is mis PLC muutujaid saab veebilehel näitamiseks valida!

The screenshot shows the LOGO Web Editor interface. The main workspace displays a graphical representation of a lamp control system. A vertical scale on the left ranges from 0 to 1000. A digital value 'Kustu=0' is shown in a grey box. A 'Lamp OFF' indicator is highlighted with a blue dashed border. Below it, a horizontal bar shows a slider from 0 to 1000. A house icon is labeled 'Liikumine' and a padlock icon is labeled 'Kinni'. The 'Digital Value - Properties' panel on the right is open, showing the following configuration:

Digital Value - Properties	
Basic	
Name	Digital Value
Location	250,110
Size	100,100
Variable	
Variable Name	Private Tag
Block Type	Q
Block Number	Q1
Writable	<input type="checkbox"/>
Animation	
On Image	lightning.gif
Off Image	uibg5.png
On Text	ON
Off Text	Lamp OFF

A green arrow points from the text 'Lisa erinevaid piditaustu info esitusele' to the 'Off Image' field in the properties panel.

C:\Program Files\lwe\lwe\res\Graph Library\Build-In Graph