

# Motion Module Installation SOP

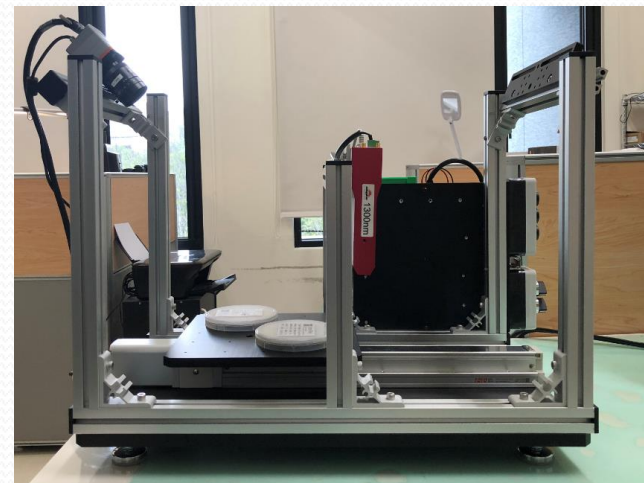
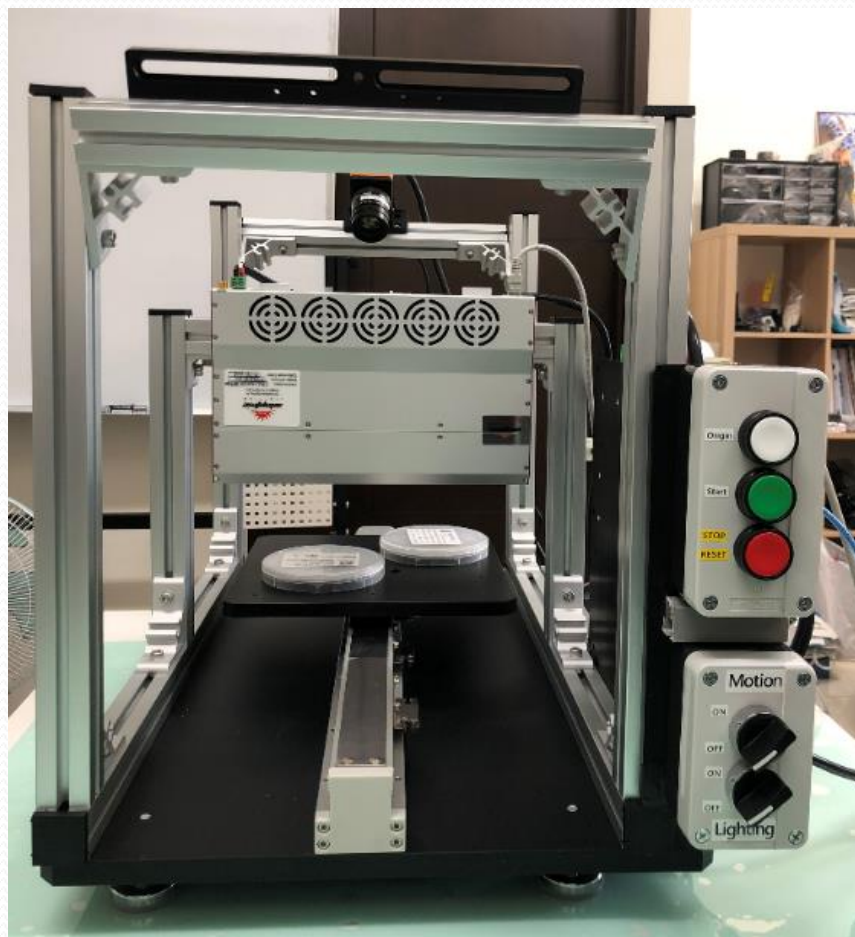
William Cheng  
Senior Product Manager

Modified Date : 20191225



Nevis is your best machine vision solution provider!

# Outside View



最完整的產品線，領先的技術服務，具競爭力的價格、高品質的產品



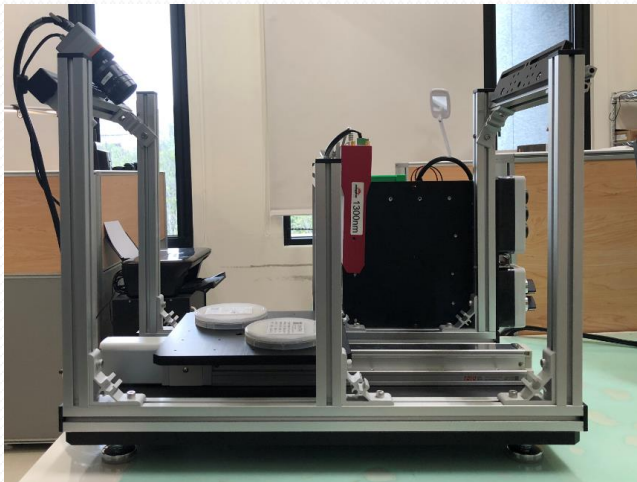
# Shipping List

- Motion Module
- Lighting Part - TBD
- Cable List
  - Mini USB Cable - Connect PC and Motion Controller
    - \* If necessary , you can change the parameter via SW.
  - 26 pin Female – Female connect PC and 26 Pin Terminal Socket  
(For Euresys Grablink Full Only )
    - \* If necessary , you can connect and use Trigger Start Signal(IIN1) .
  - Power Code – US/TW Type .

# Assembly Notice



Control Panel with AL-Frame , Please don' t separate !! The wire is connected !



When move the whole module .

DON' T take the AL-Frame Only .

Please hold the main base directly .

# Assembly Notice

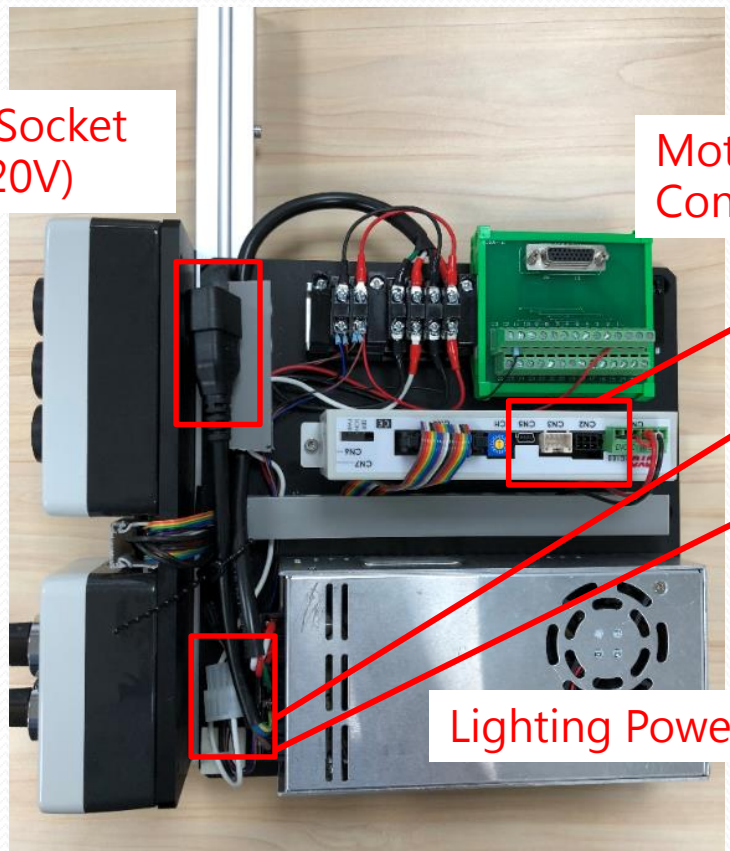
- Please be careful on the package for these cables .





# Assembly Notice

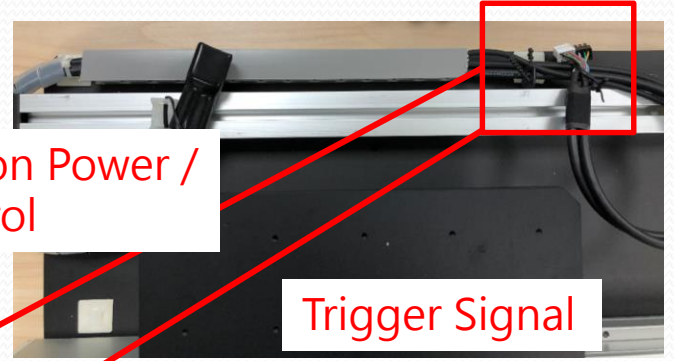
- Cable Connection



Connect to Wall Socket  
(Support 110~220V)

Motion Power /  
Control

Lighting Power



Trigger Signal



# Operation Note



OPEN Motion/Lighting Power ON

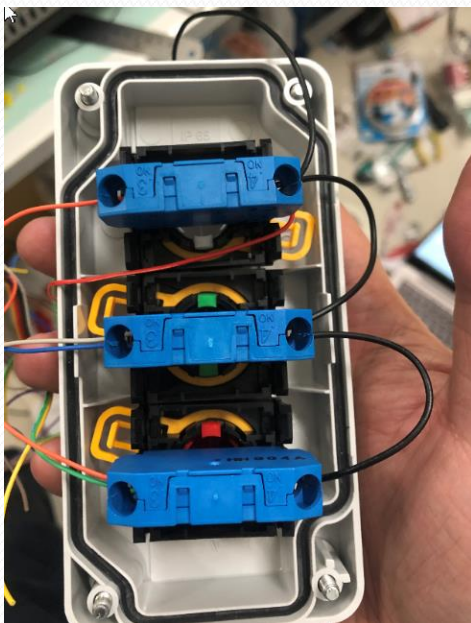


After Power ON Motion/Lighting

1. Push Origin(White) – The motion will go back to Origin.
2. Push Start(Green) - The motion will move circularly.
3. When you want to stop motion , Push Stop (Red)
4. When the motion is out of range and cause error !!  
You need to push Reset(Red) once and push Origin(White) !!

# Cable Connect Definition

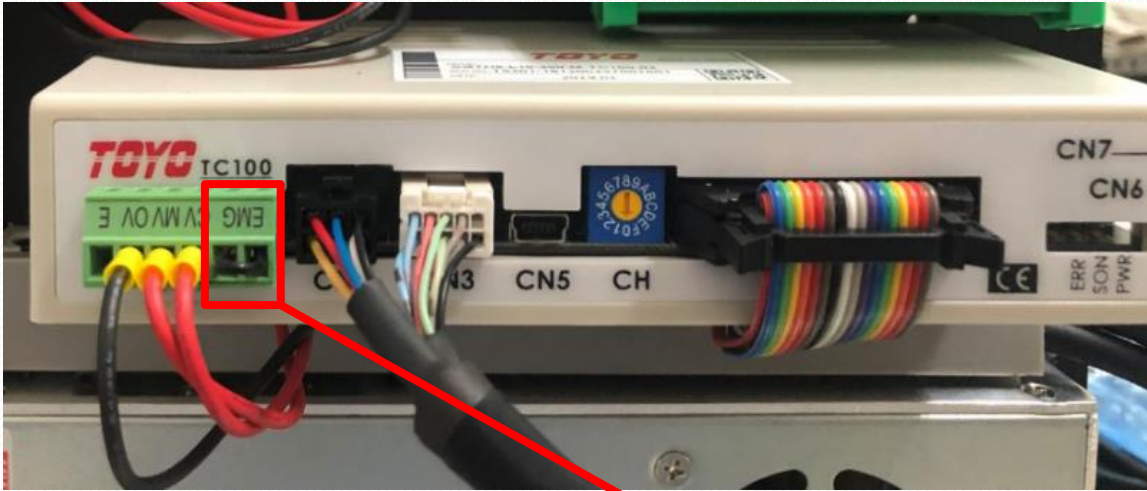
- 白色按鈕 / A3.IN1 / PIN3-橙色 // IN1.Origin原點
- 綠色按鈕 / A6.PIN6-藍色 // IN4Start  
A8.PIN8-灰色 // IN6. PRGSEL1
- 紅色按鈕 / A13.PIN13-橙色 // IN11. LOCK.STOP. 需修改IO設定  
A5.PIN5-綠色 // IN3. ALM\_RESET



JW-HIF6/32P-XXM#S5050

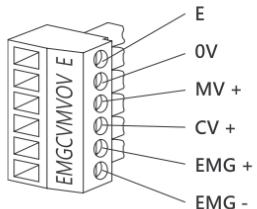
腳位	色碼	腳位	色碼
1	棕	17	紫
2	紅	18	灰
3	橙	19	白
4	黃	20	黑
5	綠	21	棕
6	藍	22	紅
7	紫	23	橙
8	灰	24	黃
9	白	25	綠
10	黑	26	藍
11	棕	27	紫
12	紅	28	灰
13	橙	29	白
14	黃	30	黑
15	綠	31	棕
16	藍	32	紅





使用附帶的電源連接器連接電源。

### 1. 電源連接器端子的名稱與功能



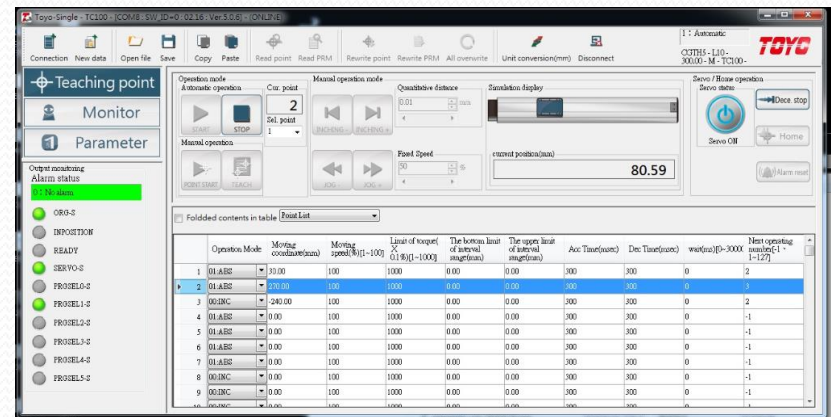
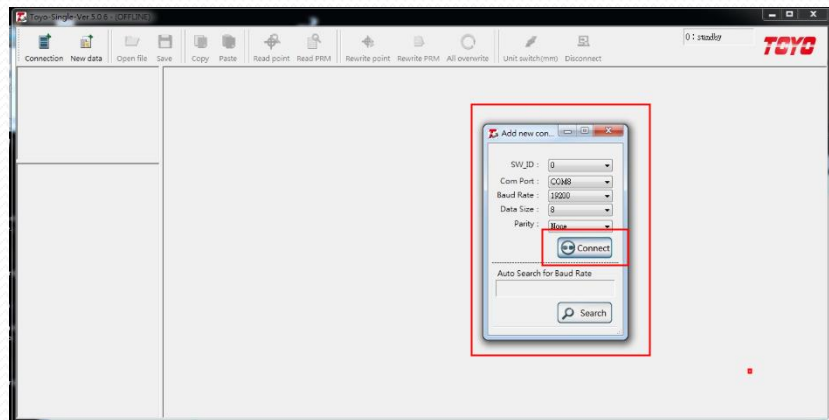
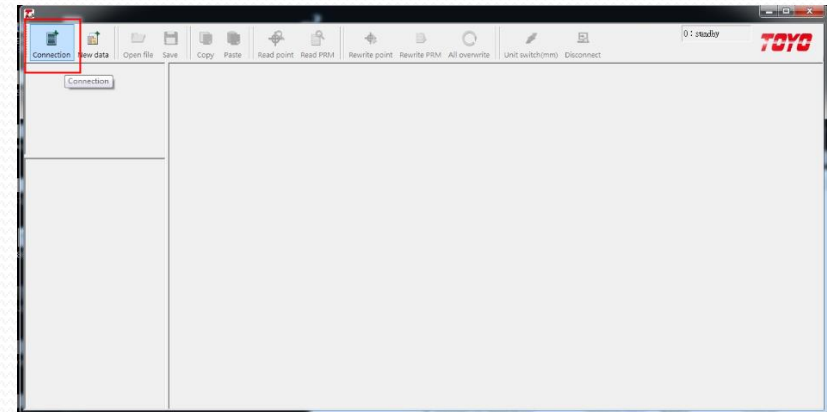
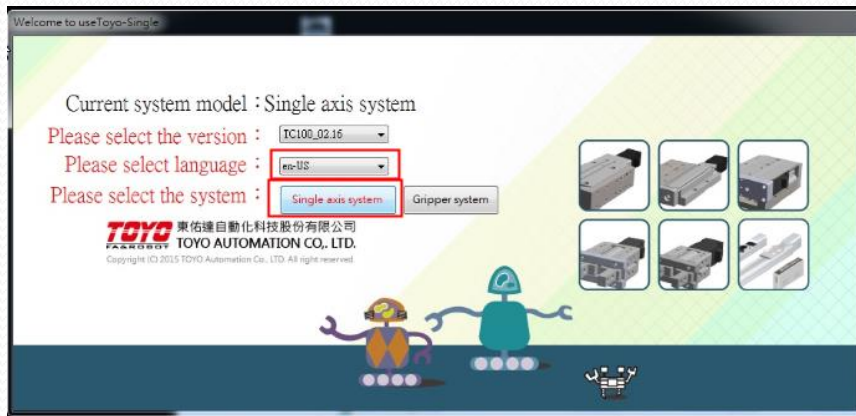
編號	信號名稱	說明
1	E	接地 (為防止雜訊干擾產生誤動作, 請確實接地)。
2	0V	GND
3	MV+	主電源: DC 24V/DC 48V · ±10%
4	CV+	控制電源: DC 24V · ±10%
5	EMG+	緊急停止, 請使用 B 接點 (RELAY 接點)
6	EMG-	

PIN5/PIN6. 直接短路相連跳線

#### ▲ 注意:

控制器額定電流 2A, 最大電流: 3A, 請依此規格選用適當的電源供應器。  
為了防止因雜訊造成的設備誤動作, 請務必給接地端子接地。

# Motion SW



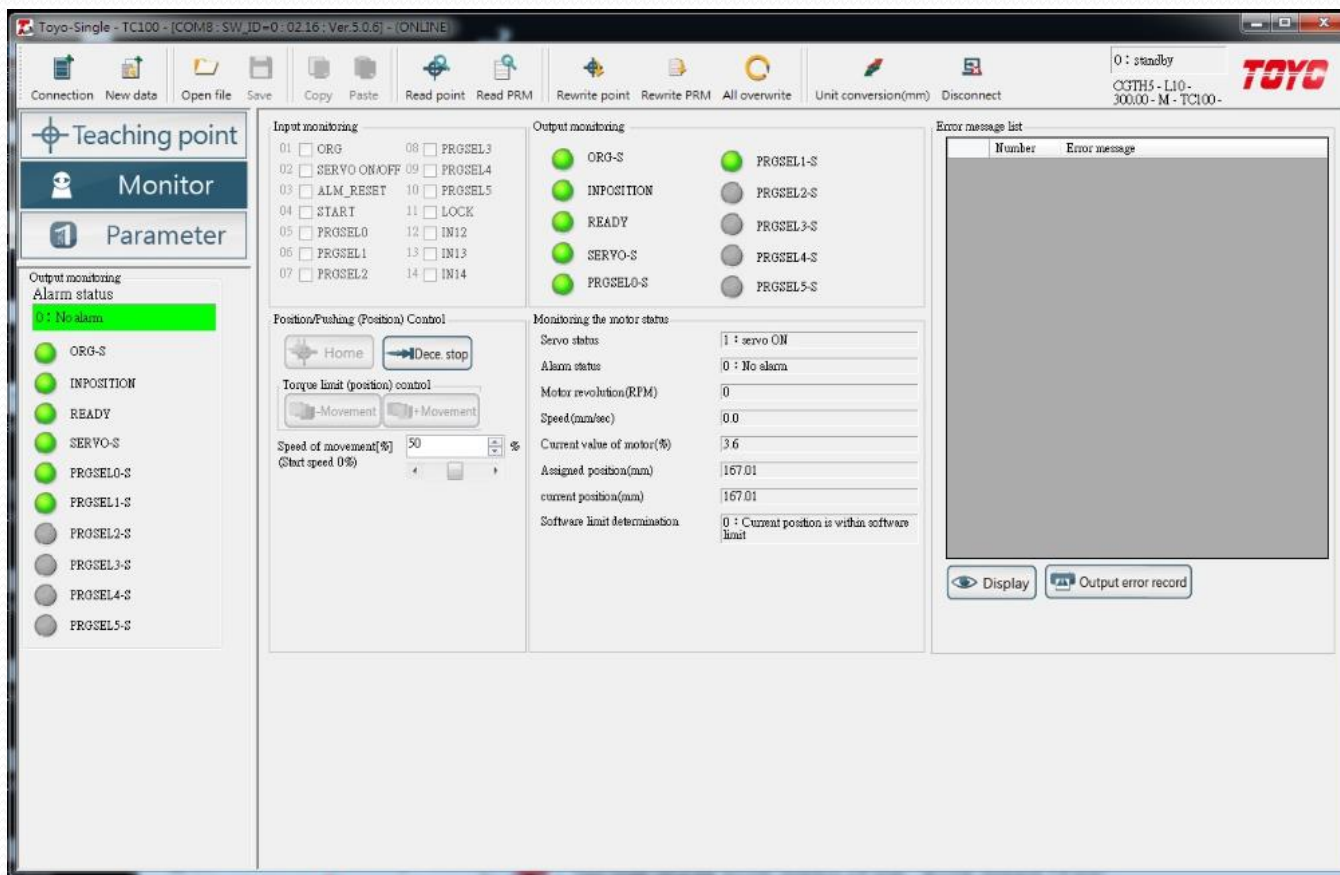
Nevis is your best machine vision solution provider!

預設參數！煩請按照紅框KEY

	Operation Mode	Moving coordinate(mm)	Moving speed(%) [1~100]	Limit of torque(X 0.1%) [1~1000]	The bottom limit of interval range(mm)	The upper limit of interval range(mm)	Acc Time(msec)	Dec Time(msec)	wait(ms)[0~3000]	Next operating number[-1~1~127]
1	01:ABS	30.00	100	1000	0.00	0.00	300	300	0	2
2	01:ABS	270.00	100	1000	0.00	0.00	300	300	0	3
3	00:INC	-240.00	100	1000	0.00	0.00	300	300	0	2
4	01:ABS	0.00	100	1000	0.00	0.00	300	300	0	-1
5	01:ABS	0.00	100	1000	0.00	0.00	300	300	0	-1
6	01:ABS	0.00	100	1000	0.00	0.00	300	300	0	-1
7	01:ABS	0.00	100	1000	0.00	0.00	300	300	0	-1
8	00:INC	0.00	100	1000	0.00	0.00	300	300	0	-1
9	00:INC	0.00	100	1000	0.00	0.00	300	300	0	-1
10	00:INC	0.00	100	1000	0.00	0.00	300	300	0	-1

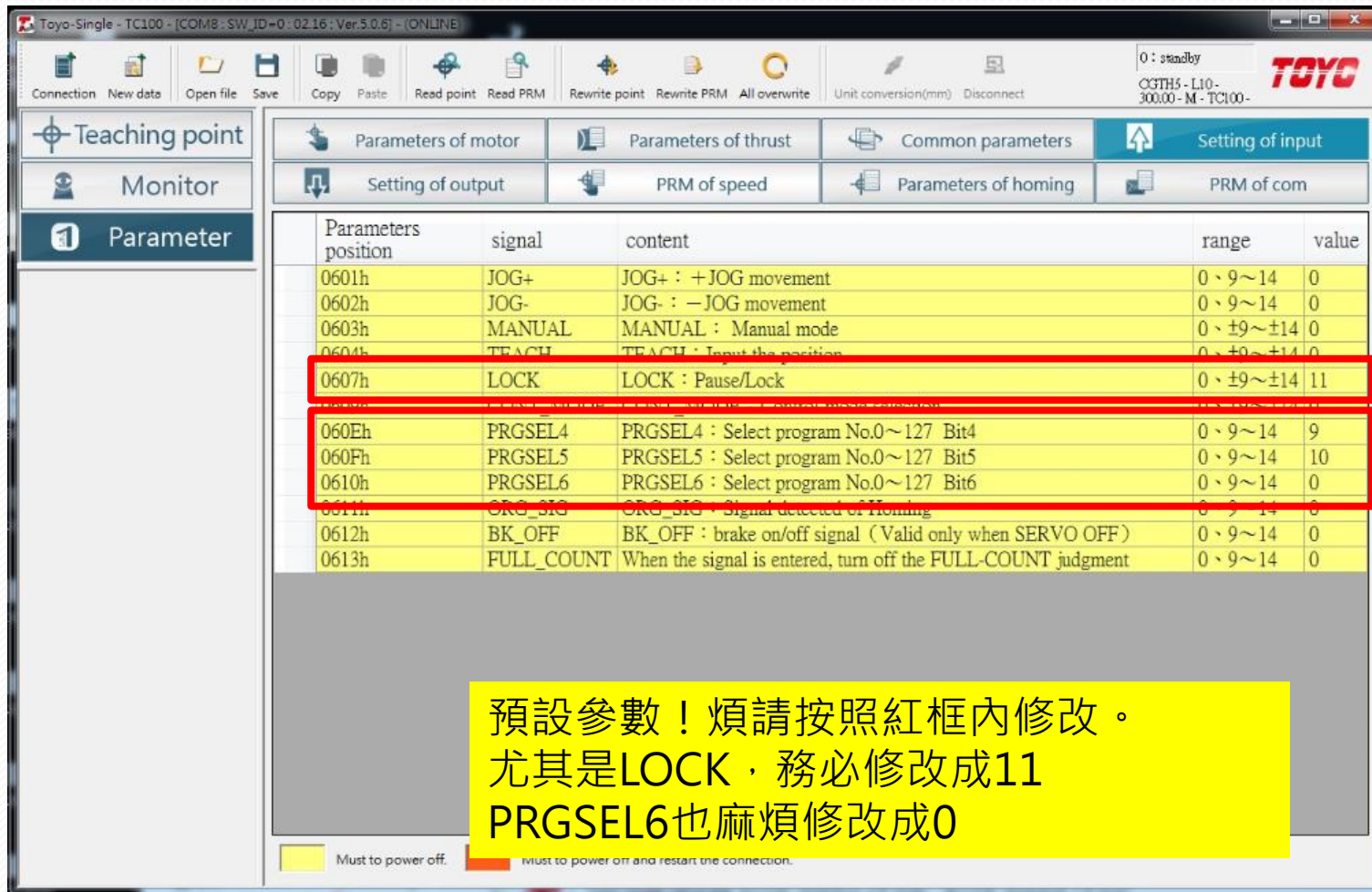
最完整的產品線，領先的技術服務，具競爭力的價格、高品質的產品

# Motion SW





# Motion SW



The screenshot shows the TOYO Motion SW interface. The title bar reads "Toyo-Single - TC100 - [COM8 - SW\_ID=0 - 02:16: Ver.5.0.6] - [ONLINE]". The interface includes a menu bar with options like Connection, New data, Open file, Save, Copy, Paste, Read point, Read PRM, Rewrite point, Rewrite PRM, All overwrite, Unit conversion(mm), and Disconnect. Below the menu bar are several tabs: Teaching point, Monitor, and Parameter. The Parameter tab is active, displaying a table of parameters. The table has columns for Parameters position, signal, content, range, and value. Two rows are highlighted with red boxes: 0607h (LOCK) and 060Eh (PRGSEL4). A yellow text box at the bottom of the screenshot provides instructions: "預設參數！煩請按照紅框內修改。尤其是LOCK，務必修改成11 PRGSEL6也麻煩修改成0".

Parameters position	signal	content	range	value
0601h	JOG+	JOG+ : +JOG movement	0、9~14	0
0602h	JOG-	JOG- : -JOG movement	0、9~14	0
0603h	MANUAL	MANUAL : Manual mode	0、±9~±14	0
0604h	TEACH	TEACH : Input the position	0、±9~±14	0
0607h	LOCK	LOCK : Pause/Lock	0、±9~±14	11
060Eh	PRGSEL4	PRGSEL4 : Select program No.0~127 Bit4	0、9~14	9
060Fh	PRGSEL5	PRGSEL5 : Select program No.0~127 Bit5	0、9~14	10
0610h	PRGSEL6	PRGSEL6 : Select program No.0~127 Bit6	0、9~14	0
0611h	ORC_SIG	ORC_SIG : Signal detected of Homing	0、9~14	0
0612h	BK_OFF	BK_OFF : brake on/off signal (Valid only when SERVO OFF)	0、9~14	0
0613h	FULL_COUNT	When the signal is entered, turn off the FULL-COUNT judgment	0、9~14	0

預設參數！煩請按照紅框內修改。  
尤其是LOCK，務必修改成11  
PRGSEL6也麻煩修改成0

Must to power off. Must to power off and restart the connection.



## 6.2 IO 信號表

NO	信號名	內容說明	備註
1	COM+	IO 電源 +24V	+24V ±10%
2	COM-	IO 電源 0V	
3	IN 1	ORG	未設參數： ORG_SIG MANUAL JOG+ JOG- TEACH BK_OFF CONT_MODE FULL_COUNT
4	IN 2	SERVO	
5	IN 3	ALM_RESET	
6	IN 4	START	
7	IN 5	PRGSEL0	
8	IN 6	PRGSEL1	
9	IN 7	PRGSEL2	
10	IN 8	PRGSEL3	
11	IN 9	PRGSEL4	
12	IN 10	PRGSEL5	
13	IN 11	PRGSEL6	
14	IN 12	LOCK	
15	IN 13	-	
16	IN 14	-	
17	OUT 1	ORG-S	未設參數：
18	OUT 2	INP	ALARM
19	OUT 3	READY	MOVE

# Motion SW

TOYO Motion SW Interface - Parameters of speed

Parameters position	signal	content	range	value
0800h	LowSpeed	Start the speed setting		2000.0
0802h	HighSpeed	Max. speed setting when operating		320000.0
0804h	AccelTime	Acceleration setting	1~30000	
0805h	DecelTime	Deceleration setting	1~30000	
0807h	TrqLimitPress	Torque tolerance setting. (Pulse)		0
080Ah	MoveSttSet	Status setting when moving	0~1	0
080Fh	JogInchingSpd	Speed setting when JOG moving(×0.1%)	1~1000	20
0810h	JogInchingData	Moving instance setting when JOG moving (Pulse)		1
0812h	JogInchingWait	Waiting time setting after JOG moving (msec)	0~1000	100
0813h	PlusSoftLimit	Software limit of +direction(mm)	0~21474836.47	300.00
0815h	MinusSoftLimit	Software limit of -direction(mm)	-21474836.48~0	-0.10

**SPEED = 320000pps, 200mm/s**

Method	Parameter	Value
方法1	最高速度(pps)	320000
	42角馬達解析度(ppr)	16000
方法2	每秒移動距離(mm/s)	200
	最高速度(pps)	320000

Legend: Yellow = Must to power off. Orange = Must to power off and restart.

# Camera Parameter

- Camera Minimum line time : 1000 us
  - FOV 200mm->8K Obj. Res = 25um
  - Speed = 200mm/s
  - Line Rate = 8K . **Minimum line time : 125us**

Nevis is your best machine vision solution provider!

# Nevis Internal Information

睿怡科技有限公司 Nevis Technology Co., Ltd.

鄭武勝

Senior Product Manager

Mobile : 0970-776585

E-mail : [william@nevis.com.tw](mailto:william@nevis.com.tw)

Web : [www.nevis.com.tw](http://www.nevis.com.tw)

最完整的產品線，領先的技術服務，具競爭力的價格、高品質的產品

