

M5Stack Unit 8Servo I2C Protocol																	V1 (FW Version)		
																	2023/3/24		
REG MAP (Addr:0x25)		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	note	
MODE SETTING		0x00 W/R	IO0	IO1	IO2	IO3	IO4	IO5	IO6	IO7								Mode:0~4 ^[1]	
1	OUTPUT CTRL	0x10 W	IO0	IO1	IO2	IO3	IO4	IO5	IO6	IO7								0:LOW ; 1:HIGH	
0	DIGITAL INPUT	0x20 R	IO0	IO1	IO2	IO3	IO4	IO5	IO6	IO7								0:LOW ; 1:HIGH	
2	ANALOG INPUT-8Bits	0x30 R	IO0	IO1	IO2	IO3	IO4	IO5	IO6	IO7								value:0~255	
	ANALOG INPUT-12Bits	0x40 R	IO0-L	IO0-H	IO1-L	IO1-H	IO2-L	IO2-H	IO3-L	IO3-H	IO4-L	IO4-H	IO5-L	IO5-H	IO6-L	IO6-H	IO7-L	IO7-H	value:0~4095
3	SERVO 8Bits	0x50 W/R	IO0	IO1	IO2	IO3	IO4	IO5	IO6	IO7								value:0~180degree	
	SERVO 16Bits	0x60 W/R	IO0-L	IO0-H	IO1-L	IO1-H	IO2-L	IO2-H	IO3-L	IO3-H	IO4-L	IO4-H	IO5-L	IO5-H	IO6-L	IO6-H	IO7-L	IO7-H	write: 500~2500us (read: 5000~25000) ^[2]
4	RGB 24Bits	0x70 W/R	IO0-R	IO0-G	IO0-B	IO1-R	IO1-G	IO1-B	IO2-R	IO2-G	IO2-B	IO3-R	IO3-G	IO3-B	IO4-R	IO4-G	IO4-B	IO5-R	R/G/B:0~255
		0x80 W/R	IO5-G	IO5-B	IO6-R	IO6-G	IO6-B	IO7-R	IO7-G	IO7-B									
5	PWM DutyCycle	0x90 W/R	pwm 0	pwm1	pwm 2	pwm 3	pwm 4	pwm 5	pwm 6	pwm 7								write: DutyCycle:0~100, frequency:1KHz	
Servo Current		0xA0 R	current-byte0	current-byte1	current-byte2	current-byte3											float		
I2C ADDRESS SETTING		0xF0 W/R															Addr	value: 0~127 default:0x25	
Firmware version		0xF0 R															Version	Version: firmware version	

[1] 0: Input, 1: Output, 2: ADC, 3: Servo, 4: NeoPixel, 5: PWM

[2] if write servo pulse is 500, read servo pulse will be 5000, need to divide 10

[3] if write pwm duty to 10, read pwm duty will be 100, need to divide 10