M5Stack HAT MiniJoyC I2C Protocol

V1 (FW Version)
11/1/2022

REG MAP (Addr:0x54)		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	note
Raw ADC Value	0x00 R	ADC-X-Value-L	ADC-X-Value-H	ADC-Y-Value-L	ADC-Y-Value-H													ADC: 0~4095
Int10 Value (with offset)[1]	0x10 R	X-L	X-H	Y-L	Y-H													Position: -512-511
Int8 Value (with offset)	0x20 R	X-L	Y-L															Position: -128-127
Button Value	0x30 R	BNT																BNT: 0~1
RGB	0x40 R/W	LED-R	LED-G	LED-B														R/G/B: 0~255
Calibration	0x50 R/W	X-Min-Cal-Value-L	X-Min-Cal-Value-H	X-Max-Cal-Value-L	X-Max-Cal-Value-H	Y-Min-Cal-Value-L	Y-Min-Cal-Value-H	Y-Max-Cal-Value-L	Y-Max-Cal-Value-H	X-Center-Cal-Value-L	X-Center-Cal-Value-H	Y-Center-Cal-Value-L	Y-Center-Cal-Value-H					
Firmware Version	0xF0 R															Version		Version: firmware version number
I2C Address	0xF0 R/W																Address	Address: 1~127

[1] ADC Mapping formula

$$\text{adc}\_out = \frac{(adc\_raw - \text{Min\_Cal\_Va lue}) \times (ADC\_Out\_Max - ADC\_Out\_Min)}{(\text{Max\_Cal\_V alue - Min\_Cal\_Va lue}) + ADC\_Out\_Min}$$