

The servo that controls ID1 turns to the 1000 position in 2 seconds.

Before continuing this article please note if the servo ID is 1, if not, please use the debugging software to set the ID number to 1.

Position value is 1000.

Time value is 2000ms.

Parameter 1: lower 8 bits of position value

Parameter 2: higher 8 bits of position value

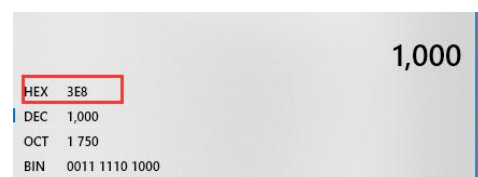
Parameter 3: lower 8 bits of time value

Parameter 4: higher 8 bits of time value

The command that make servo rotate is 55 55 ID 07 01 Parameter1

Parameter2 Parameter3 Parameter4.

Checksum Position is 1000, the appropriate hexadecimal value is



HEX	3E8
DEC	1,000
OCT	1 750
BIN	0011 1110 1000

(You can use the calculator conversion, in the program code because the data are binary, so you can directly take eight high and low without conversion)

Lower 8 bits of position value is 0xE8, higher 8 bits is 0x03

Parameter 1: 0xE8

Parameter 2: 0x03

Then in the same way, get parameter 3, parameter 4.

Time value is 2000ms,



HEX	7D0
DEC	2,000
OCT	3 720
BIN	0111 1101 0000

So Parameter 4 is 0xD0

Parameter 3 is 0x07

According to current parameter, the command should be

Header: 0x55 0x55 | ID: 0x01 | Data Length: 0x07 | Command: 0x01 | Parameter 1: 0xE8 | Parameter 2: 0x03 | Parameter 3: 0xD0 | Parameter 4: 0x07
55 55 01 07 01 E8 03 D0 07

Then calculate checksum

Checksum = $\sim (ID + Length + Cmd + Prm1 + \dots Prm N)$ Calculations in parentheses and beyond 255

Checksum = $\sim (0x01 + 0x07 + 0x01 + 0xE8 + 0x03 + 0xD0 + 0x07)$

	Not(1CB)
	FFFF FFFF FFFF FE34
HEX	FFFF FFFF FFFF FE34
DEC	-460
OCT	1 777 777 777 777 777 064
BIN	1111 1111 1111 1111 1111 1111 1111 1111 1111 1111 1111 1111 1111 1110 0011 0100

Take the lowest byte 0x34

Complete command is 55 55 01 07 01 E8 03 D0 07 34

Then we will change the target position, transposed 500,

That ID1 servo with 2s to 500 position

Frame header is the same, is to change the location and checksum

So instruction programming

55 55 01 07 01 Parameter 1 Parameter 2 D0 07 Checksum

The top eight of the 500 is 01 The eighth is the F4

That is, the command changes to 55 55 01 07 01 F4 01 D0 07 checksum

Checksum = lowest one byte of $\sim (01 + 07 + 01 + F4 + 01 + D0 + 07)$ 2A

Not(1D5)	
FFFF FFFF FFFF FE2A	
HEX	FFFF FFFF FFFF FE2A
DEC	-470
OCT	1 777 777 777 777 777 052
BIN	1111 1111 1111 1111 1111 1111 1111 1111 1111 1111 1111 1111 1110 0010 1010

The final order is 55 55 01 07 01 F4 01 D0 07 2A

Now we get two instructions

Let the ID1 servo go to 1000 with 2000 milliseconds

55 55 01 07 01 E8 03 D0 07 34

Let ID1 servos turn to 500 positions in 2000 milliseconds

55 55 01 07 01 F4 01 D0 07 2A