**Command Codes**

The command codes for Holmarc Monochromator are given below. Each code should be sent as a number, of one byte length. Sending ASCII characters will not work.

**Initialization Parameters for Serial Communication**

* Baud Rate: 19200 bps
* Bits Size: 8
* Parity: None
* Stop Bits: 1

**Device Check**

* Send **5** to controller and wait for the acknowledgement **5**.

**Reset Monochromator**

* Send **6**: acknowledgement **6.**
* Wait for reset completion acknowledgement **7**.

**Setting Gratting density**

* ***Gratting 1:-***
* Send **75** to controller and wait for the acknowledgement **75.**
* Send **density value byte 1** to controller and wait for the acknowledgement **density value byte 1.**
* Send **density value byte 0** to controller and wait for the **density value byte 0.**
* ***Gratting 2:-*** 
  + Send **76** to controller and wait for the acknowledgement **76.**
  + Send **density value byte 1** to controller and wait for the acknowledgement **density value byte 1.**
  + Send **density value byte 0** to controller and wait for the **density value byte 0.**

***Notes: -***

* Gratting 1 density value = 1200.
* Gratting 2 density value = 800.
* Byte1= Integer value of (Density / 256).
* Byte0= Remainder of (Density / 256).

**Go to Wavelength**

* Send **10** and wait for acknowledgement 10.
* Send **selected gratting number** and wait for acknowledgement **selected gratting number**.
* Send **wave number byte 1** and wait for acknowledgement **wave number byte 1**.
* Send **wave number byte 0** and wait for acknowledgement **wave number byte 0**.
* Wait for any of the following codes.
* **20** – Indicates that the movement is completed.
* **7** – Home limit reached.
* **14** – Far limit reached.

* **Stop**: - Send **100** to the controller to terminate a running program.

***Notes:-***

* Wave number byte 0 = Integer value of (Wave Number / 256).
* Wave number byte 1 = Remainder of (Wave Number / 256).
* Selected Gratting Number: For Gratting 1 = 1

For Gratting 2 = 2

**Cut off filter selection**

* Send **86** to controller and wait for the acknowledgement **87**.
* Send **filter number** to controller and wait for the acknowledgement **filter number**.

**Notes:-**

* Filter number = 1 for Block filter.
* Filter number = 2 for Open filter or wavelength range 200 nm to 380 nm.
* Filter number = 3 for wavelength range 381 nm to 650 nm.
* Filter number = 4 for wavelength range 651 nm to 950 nm.
* Filter number = 5 for wavelength range 951 nm to 2000 nm.

**Slit width filter selection**

* Send **65** to controller and wait for the acknowledgement **65**.
* Send **slit width** **filter number** to controller and wait for the acknowledgement **slit width** **filter number**.

**Shutter Open**

* Send **23** to controller and wait for the acknowledgement **23**.
* Send **delay time byte 1** to controller and wait for the acknowledgement delay time **byte 1.**
* Send **delay time byte 0** to controller and wait for the delay time **byte 0.**

***Notes: -***

* Byte1= Integer value of (Delay time in ms / 256).
* Byte0= Remainder of (Delay time in ms / 256).

**Shutter Close**

* Send **24** to controller and wait for the acknowledgement **24**.

**Led intensity**

* **LED 1**
* Send **17** to controller and wait for the acknowledgement **17**.
* Send **intensity value** tocontroller and wait for the acknowledgement **intensity value**.
* **LED 2**
* Send **27** to controller and wait for the acknowledgement **27**.
* Send **intensity value** tocontroller and wait for the acknowledgement **intensity value**.

***Notes: -*** intensity value range = 0 to 255.

**Trigger In**

* Send **18** to controller and wait for the acknowledgement **19**.

**Trigger Out**

* Send **22** to controller and wait for the acknowledgement **22**.