**2 FEET LED BOARD MANUAL(Serial and PS2)**

There are two modes to operate the “2FEET LED BOARD”

1. PS2 MODE.( Key board interface ) :
2. SERIAL MODE. ( AT+REG)
3. EMBEDDED MODE. (AT+EMD)

**1. PS2 MODE ( Key board interface )** any computer key board with ps2 connector only

On key board detector – Display . Connect PS2 key board, restart the power to initialize key board. Press enter it shows the below message.

Row wise : F1.NEW MSG

F2.DELETE MSG

F3.VIEW

F4.FORMAT

F6.TIME

F7.EDIT

ESC.EXIT

**Requirement :** After displaying the menu it displays “choice?”.Then according to your press the keys

**NOTE: If you are not interested to check the LED’s press “Esc” button in key board 3 times. Then it directly displays the menu.**

 **F1.NEW**: - This function is to enter a new message your wish .

The format for new message is as below .

 <M string><S s><D Ln><D Rn><D Dn><D Un><T n>.After entering the message press “**ENTER”** key then it stores in the memory.

Where each letter represent

 M – Message S – Speed D - Direction

String - text you want to display.

S - Speed count (1 to 8) L - Left Scroll R - Right Scroll

U - Up Scroll D - Down Scroll B - Blink

N - No.of times T - To display time and Date.

 **EX**: - <M Hi this is test message><S 4><D L1><D R2><D U5><D D10><D B2><T 2>

**NOTE**: - If you want to change the speed of the scrolling just place the speed parameter (<S s>) before the direction parameter (<D Ln>).

**F2.DELETE** : - This is used to delete messages.

 If there are no messages it will display “NO MSGS”. If messages existes, then it will allow you to enter message number by displaying “NO:” . Enter the message number which you want to delete. Press “ENTER” the message will be deleted in the memory.

**F3.VIEW** : - This is used to view the messages ( preloaded ).

 If there are no messages it will display “NO MSGS” If messages exists, then it will allow you to enter message number by displaying “NO:”. Enter the message number which you want to see. Press “ENTER” the message will be displayed on the board.

**F4.FORMAT** : - This is used to delete all messages which are stored in the memory. When you are pressing “F4” key .it displays “YYES NNO”. If you press “Y“ , it formats If you press “N”

If you donot wish to format. The enter preloaded messages.

**F6.TIME :-** To set the time and date. It displays”10N 20FF”.Press “1” in the ps2 it displays “ENABLED” wait for 20sec.Displays the format of the time “HH:MM:SS”(EX:11:10:30).After setting the time it displays “DD:MM:YY”(EX:02:06:12).

 HH: Hours

MM: Minutes

SS: Seconds

DD: Date

MM: Month

YY: Year

NOTE: The time format will be in the 24 Hours mode. So you enter the time in 24 Hours format.

**F7. EDIT :-** This is used to Edit the messages.

 If there are no messages it will display “NO MSGS”. If messages existes, then it will allow you to enter message number by displaying “NO:” . Enter the message number which you want to edit. After editing that message Press “ENTER” the message will be save on that memory location.

**ESC.EXIT**: - Is to exit from the menu.

After it exits from the command mode it will enter into the run mode where it will scroll the present messages.

( OR )

 not detected properly.

NOTE: If PS2 keyboard or Serial port is not connected to the device it will directly go to the run mode and it will scroll the available messages.

**2.SERIAL MODE:-**

 Before power up the device you will connect the serial. Please check it the connection is correct or not. After that you will set the settings in your pc. Then you will power up the device.

 If it is connected then enter the AT command “AT+REG”. It enters into serial mode. Then it displays our company logo, website and the serial menu. The menu is in the fallowing.

 1. NEW MESSAGE 2. VIEW MESSAGE 3. DELETE MESSAGE 4. FORMAT

 5. SET TIME & DATE 6. EXIT. 7. HELP 8. EDIT

**1. NEW MESSAGE:**  When you press “1”in the keyboard. The it displays “Enter message:”.

Then you enter the message in the following manner.

Syntax: <M STRING><S s><D Ln><D Rn><D Un><D Dn><D Bn><T 2>.

 After entering the message press “**ENTER”** key in ps2 then it stores in the memory.

Ex:- <M Hi this is test message><S 4><D L1><D R2><D U5><D D10><D B2><T 2>

**WHERE:**

 M - Message S - Speed D - Direction

String - The data which you want to scroll

s - Speed count (1 to 8) L - Left Scroll

R - Right Scroll U - Up Scroll

D - Down Scroll B - Blink

n - No.of times T - To display time and Date.

**2. VIEW MESSAGE:** This is used to view the existed messages.

 If there are no messages it will display “There are no messages” nothing but there are no messages in the memory. If messages existed, then it will allow you to enter message number by displaying “ENTER MESSAGE NUMBER:”. Then you need to enter the message number which you want to see. Then after press “ENTER” key in keyboard. The message will be displayed on the message on serial.

**3. DELETE MESSAGE:** This is used to delete existing messages.

 If there are no messages it will display “There are no messages to delete” nothing but there are no messages in the memory. If messages existed, then it will allow you to enter message number by displaying “ENTER MESSAGE NUMBER:”. Then you need to enter the message number which you want to delete. Then after press “ENTER” key in keyboard. In serial displays “Successfully deleted the message”. It means the message will be deleted to the memory.

 **4. FORMAT:** This is used to delete all messages which are stored in the memory. When you are pressing “4” key in the key board. It displays “Successfully formatted the data”.

 **5. SET TIME & DATE:** To set the time and date. It displays” Do you want to enable the time and date display? Y.YES N.NO”.Press “Y” in the keyboard, it displays “Set the TIME and DATE: HH:MM:SS and DD: MM:YY format “and “Hour must be in 24hour mode and 2characters width”.

EX: Enter Hours: HH: 11

 Enter Minutes: MM: 50

 Enter Seconds: SS: 20

 Enter Date : DD: 02

 Enter Month: MM: 06

 Enter Year : YY: 12

After that serial displays” Successfully set the TIME and DATE”. Suppose you will enter the wrong time it displays “\*\*\* Wrong Time and Date \*\*\*”.

NOTE: Entering every data after that press “ENTER” key in the key board.

 **6. EXIT:** It is to exit from the menu.

After it exits from the command mode it will enter into the run mode where it will scroll the present messages.

7. HELP : If you are having any doubt you press this command. It will the serial mode instruction.

8. EDIT : This is used to Edit the existed messages.

 If there are no messages it will display “There are no messages” nothing but there are no messages in the memory. If messages existed, then it will allow you to enter message number by displaying “ENTER MESSAGE NUMBER:”. Then you need to enter the message number which you want to Edit. After editing the message press “ENTER” key in keyboard. The message will be saved on the memory location. The saved message will be displayed on the serial .

**3.EMBEDDED MODE (AT +EMD):-**

Before power up the device you will connect the serial. Please check it the connection is correct or not. After that you will set the settings in your pc. Then you will power up the device.

 If it is connected then enter the AT command “AT+EMD”. It enters into Embedded mode.

After that you will enter the new message in the following.

Syntax:AT+Text message+Tn

EX:AT+WELCOME+T2

Text message:Enter the text message to scroll.

T- displays the Time & Date

n- number of times to scroll.

**NOTE: You can enter 200 characters (including Spaces) per message.**

 **Maximum number of times to scroll 250.**