

Default baud rate of LED Display is 115200

Except for codes for 0xd1~0xd9, 0xa0~ab and 0xf0~0xf6 all other codes only change the display memory, thus you have to excute the "0xd1" code (Function of refresh the display ) to display the changes in the display memory after you write a character, string , pattern or draw a line.

**Wrong Example:**  
Write\_5X7\_String(7, 17 , positive, "RPM");  
Write\_8X16\_Pattern(1, 45, positive, 0);  
Draw\_Rectangle( 0, 0, 127, 127, positive );  
  
/\*Without excute the Show\_Display\_Momery() function the change only in the memory, it won't display\*/  
  
**Correct Example:**  
Write\_5X7\_String(7, 17 , positive, "RPM");  
Write\_8X16\_Pattern(1, 45, positive, 0);  
Draw\_Rectangle( 0, 0, 127, 127, positive );  
Show\_Display\_Momery();  
  
/\*With the execution of Show\_Display\_Memory() fuction, the change of display memory will be displayed\*/

Code	Function	Sequence of HEX command mode through UART	API for Arduino
N/A	Send a image(192X64 bitmap) to LED <i>(An array consist of 1536 bytes bitmap information)</i>	1. A "for" loop to send 1536 bytes user define display information 2. Wait until receive a module available byte (E) from LED 3. Wait 2ms	for (i = 0 ; i < 1536; i++) { Serial.write(User_define_array[i]); } while (Serial.read() != 'E') {} delay(2);
0xd0	Write a 5X7 Character	1. Send 0xd0 2. Send which line to put this character 3. Send which cloumn to put this character 4. Send character's ASCII code 5. Wait until receive a module available byte (E) from LED 6. Wait 2ms	void Write_5X7_Character( int line, int column, int negative, char Char) { Serial.write(0xd0); Serial.write(line); Serial.write(column); Serial.print(Char); while (Serial.read() != 'E') {} delay(2); }
0xd1	Write a 8X8 String	1. Send 0xd1 2. Send which line to start the string 3. Send which cloumn to start the string 4. Send string 5. Wait until receive a module available byte(E) from LED 6. Wait 2ms	void Write_5X7_String( int line, int column, int negative, char * string) { Serial.write(0xd1); Serial.write(line); Serial.write(column); Serial.print(string); while (Serial.read() != 'E') {} delay(2); }
0xd2	Write a 8X16 Character	1. Send 0xd0 2. Send which line to put this character 3. Send which cloumn to put this character 4. Send character's ASCII code 5. Wait until receive a module available byte(E) from LED 6. Wait 2ms	void Write_8X16_Character( int line, int column, int negative, char Char) { Serial.write(0xd2); Serial.write(line); Serial.write(column); Serial.print(Char); while (Serial.read() != 'E') {} delay(2); }
0xd3	Write a 8X16 String	1. Send 0xd3 2. Send which line to start the string 3. Send which cloumn to start the string 4. Send string 5. Wait until receive a module available byte(E) from LED 6. Wait 2ms	void Write_8X16_String( int line, int column, int negative, char * string) { Serial.write(0xd3); Serial.write(line); Serial.write(column); Serial.print(string); while (Serial.read() != 'E') {} delay(2); }
0xd4	Display a 8X8 pattern	1. Send 0xd4 2. Send the Up Left X coordinate of pattern 3. Send the Up Left Y coordinate of pattern 4. Send the ID of pattern 5. Wait until receive a module available byte (E) from LED 6. Wait 2ms	void Write_8X8_Pattern( int Up_Left_Xpos, int Up_Left_Ypos, int negative, int Pattern_ID) { Serial.write(0xd4); Serial.write(Up_Left_Xpos); Serial.write(Up_Left_Ypos); Serial.write(Pattern_ID); while (Serial.read() != 'E') {} delay(2); }
0xd5	Display a 8X16 pattern	1. Send 0xd5 2. Send the Up Left X coordinate of pattern 3. Send the Up Left Y coordinate of pattern 4. Send the ID of pattern 5. Wait until receive a module available byte (E) from LED 6. Wait 2ms	void Write_8X16_Pattern( int Up_Left_Xpos, int Up_Left_Ypos, int negative, int Pattern_ID) { Serial.write(0xd5); Serial.write(Up_Left_Xpos); Serial.write(Up_Left_Ypos); Serial.write(Pattern_ID); while (Serial.read() != 'E') {} delay(2); }
0xd6	Display a 16X16 pattern	1. Send 0xd6 2. Send the Up Left X coordinate of pattern 3. Send the Up Left Y coordinate of pattern 4. Send the ID of pattern 5. Wait until receive a module available byte (E) from LED 6. Wait 2ms	void Write_16X16_Pattern( int Up_Left_Xpos, int Up_Left_Ypos, int negative, int Pattern_ID) { Serial.write(0xd6); Serial.write(Up_Left_Xpos); Serial.write(Up_Left_Ypos); Serial.write(Pattern_ID); while (Serial.read() != 'E') {} delay(2); }
0xd7	Display a 32X32 pattern	1. Send 0xd7 2. Send the Up Left X coordinate of pattern 3. Send the Up Left Y coordinate of pattern 4. Send the ID of pattern 5. Wait until receive a module available byte (E) from LED 6. Wait 2ms	void Write_32X32_Pattern( int Up_Left_Xpos, int Up_Left_Ypos, int negative, int Pattern_ID) { Serial.write(0xd7); Serial.write(Up_Left_Xpos); Serial.write(Up_Left_Ypos); Serial.write(Pattern_ID); while (Serial.read() != 'E') {} delay(2); }
0xd0	Draw a line	1. Send 0xd0 2. Send the X coordinate of first point 3. Send the Y coordinate of first point 4. Send the X coordinate of second point 5. Send the Y coordinate of second point 6. Send 1 or 0 for display mode (1 for positive, 0 for negative) 7. Wait until receive a module available byte (E) from LED 8. Wait 2ms	void Draw_Line( int X0_Pos, int Y0_Pos, int X1_Pos, int Y1_Pos, int negative ) { Serial.write(0xd0); Serial.write(X0_Pos); Serial.write(Y0_Pos); Serial.write(X1_Pos); Serial.write(Y1_Pos); Serial.write(0 or 1); while (Serial.read() != 'E') {} delay(2); }
0xd1	Draw a Rectangle	1. Send 0xd1 2. Send the X coordinate of up left corner 3. Send the Y coordinate of up left corner 4. Send the X coordinate of bottom right corner 5. Send the Y coordinate of bottom right corner 6. Send 1 or 0 for display mode (1 for positive, 0 for negative) 7. Wait until receive a module available byte (E) from LED 8. Wait 2ms	void Draw_Rectangle( int X0_Pos, int Y0_Pos, int X1_Pos, int Y1_Pos, int negative ) { Serial.write(0xd1); Serial.write(X0_Pos); Serial.write(Y0_Pos); Serial.write(X1_Pos); Serial.write(Y1_Pos); Serial.write(0 or 1); while (Serial.read() != 'E') {} }
0xd2	Draw a filled Rectangle	1. Send 0xd2 2. Send the X coordinate of up left corner 3. Send the Y coordinate of up left corner 4. Send the X coordinate of bottom right corner 5. Send the Y coordinate of bottom right corner 6. Send 1 or 0 for display mode (1 for positive, 0 for negative) 7. Wait until receive a module available byte (E) from LED 8. Wait 2ms	void Draw_Filled_Rectangle( int X0_Pos, int Y0_Pos, int X1_Pos, int Y1_Pos, int negative ) { Serial.write(0xd2); Serial.write(X0_Pos); Serial.write(Y0_Pos); Serial.write(X1_Pos); Serial.write(Y1_Pos); Serial.write(0 or 1); while (Serial.read() != 'E') {} delay(2); }
0xd3	Draw a Square	1. Send 0xd3 2. Send the X coordinate of up left corner 3. Send the Y coordinate of up left corner 4. Send the width of this square 5. Send 1 or 0 for display mode (1 for positive, 0 for negative) 6. Wait until receive a module available byte (E) from LED 7. Wait 2ms	void Draw_Square( int X0_Pos, int Y0_Pos, int width, int negative ) { Serial.write(0xd3); Serial.write(X0_Pos); Serial.write(Y0_Pos); Serial.write(width); Serial.write(0 or 1); while (Serial.read() != 'E') {} delay(2); }
0xd4	Draw a Circle	1. Send 0xd4 2. Send the X coordinate of the center 3. Send the Y coordinate of the center 4. Send the radius of this circle 5. Send 1 or 0 for display mode (1 for positive, 0 for negative) 6. Wait until receive a module available byte (E) from LED 7. Wait 2ms	void Draw_Circle( int X0_Pos, int Y0_Pos, int radius, int negative ) { Serial.write(0xd4); Serial.write(X0_Pos); Serial.write(Y0_Pos); Serial.write(radius); Serial.write(0 or 1); while (Serial.read() != 'E') {} delay(2); }
0xd5	Draw a filled Circle	1. Send 0xd5 2. Send the X coordinate of the center 3. Send the Y coordinate of the center 4. Send the radius of this circle 5. Send 1 or 0 for display mode (1 for positive, 0 for negative) 6. Wait until receive a module available byte (E) from LED 7. Wait 2ms	void Draw_Filled_Circle( int X0_Pos, int Y0_Pos, int radius, int negative ) { Serial.write(0xd5); Serial.write(X0_Pos); Serial.write(Y0_Pos); Serial.write(radius); Serial.write(0 or 1); while (Serial.read() != 'E') {} delay(2); }

0x96	Draw a tip upward Triangle	1. Send 0x96 2. Send the X coordinate of the tip 3. Send the Y coordinate of the tip 4. Send the height of the tip to the bottom 5. Send 1 or 0 for display mode (1 for positive, 0 for negative) 6.Wait until receive a module available byte (E) from LED 7. Wait 2ms	void Draw_Triangle_Up_Ward( int X0_Pos, int Y0_Pos, int height, int negative ) { Serial.write(0x96); Serial.write(X0_Pos); Serial.write(Y0_Pos); Serial.write(height); Serial.write(0 or 1); while (Serial.read() !=E) {} delay(2); }
0x97	Draw a filled tip upward Triangle	1. Send 0x97 2. Send the X coordinate of the tip 3. Send the Y coordinate of the tip 4. Send the height of the tip to the bottom 5. Send 1 or 0 for display mode (1 for positive, 0 for negative) 6.Wait until receive a module available byte (E) from LED 7. Wait 2ms	void Draw_Filled_Triangle_Up_Ward( int X0_Pos, int Y0_Pos, int height, int negative ) { Serial.write(0x97); Serial.write(X0_Pos); Serial.write(Y0_Pos); Serial.write(height); Serial.write(0 or 1); while (Serial.read() !=E) {} delay(2); }
0x98	Draw a tip downward Triangle	1. Send 0x98 2. Send the X coordinate of the tip 3. Send the Y coordinate of the tip 4. Send the height of the tip to the top 5. Send 1 or 0 for display mode (1 for positive, 0 for negative) 6.Wait until receive a module available byte (E) from LED 7. Wait 2ms	void Draw_Triangle_Down_Ward( int X0_Pos, int Y0_Pos, int height, int negative ) { Serial.write(0x98); Serial.write(X0_Pos); Serial.write(Y0_Pos); Serial.write(height); Serial.write(0 or 1); while (Serial.read() !=E) {} delay(2); }
0x99	Draw a filled tip downward Triangle	1. Send 0x99 2. Send the X coordinate of the tip 3. Send the Y coordinate of the tip 4. Send the height of the tip to the top 5. Send 1 or 0 for display mode (1 for positive, 0 for negative) 6.Wait until receive a module available byte (E) from LED 7. Wait 2ms	void Draw_Filled_Triangle_Down_Ward( int X0_Pos, int Y0_Pos, int height, int negative ) { Serial.write(0x99); Serial.write(X0_Pos); Serial.write(Y0_Pos); Serial.write(height); Serial.write(0 or 1); while (Serial.read() !=E) {} delay(2); }
0x9a	Draw a tip leftward Triangle	1. Send 0x9a 2. Send the X coordinate of the tip 3. Send the Y coordinate of the tip 4. Send the width of the tip to the right 5. Send 1 or 0 for display mode (1 for positive, 0 for negative) 6.Wait until receive a module available byte (E) from LED 7. Wait 2ms	void Draw_Triangle_Left_Ward( int X0_Pos, int Y0_Pos, int width, int negative ) { Serial.write(0x9a); Serial.write(X0_Pos); Serial.write(Y0_Pos); Serial.write(width); Serial.write(0 or 1); while (Serial.read() !=E) {} delay(2); }
0x9b	Draw a filled tip leftward Triangle	1. Send 0x9b 2. Send the X coordinate of the tip 3. Send the Y coordinate of the tip 4. Send the width of the tip to the right 5. Send 1 or 0 for display mode (1 for positive, 0 for negative) 6.Wait until receive a module available byte (E) from LED 7. Wait 2ms	void Draw_Filled_Triangle_Left_Ward( int X0_Pos, int Y0_Pos, int width, int negative ) { Serial.write(0x9b); Serial.write(X0_Pos); Serial.write(Y0_Pos); Serial.write(width); Serial.write(0 or 1); while (Serial.read() !=E) {} delay(2); }
0x9c	Draw a tip rightward Triangle	1. Send 0x9c 2. Send the X coordinate of the tip 3. Send the Y coordinate of the tip 4. Send the width of the tip to the left 5. Send 1 or 0 for display mode (1 for positive, 0 for negative) 6.Wait until receive a module available byte (E) from LED 7. Wait 2ms	void Draw_Triangle_Right_Ward( int X0_Pos, int Y0_Pos, int width, int negative ) { Serial.write(0x9c); Serial.write(X0_Pos); Serial.write(Y0_Pos); Serial.write(width); Serial.write(0 or 1); while (Serial.read() !=E) {} delay(2); }
0x9d	Draw a filled tip rightward Triangle	1. Send 0x9d 2. Send the X coordinate of the tip 3. Send the Y coordinate of the tip 4. Send the width of the tip to the left 5. Send 1 or 0 for display mode (1 for positive, 0 for negative) 6.Wait until receive a module available byte (E) from LED 7. Wait 2ms	void Draw_Filled_Triangle_Right_Ward( int X0_Pos, int Y0_Pos, int width, int negative ) { Serial.write(0x9d); Serial.write(X0_Pos); Serial.write(Y0_Pos); Serial.write(width); Serial.write(0 or 1); while (Serial.read() !=E) {} delay(2); }
0x9e	Set a pixel for positive display (show pixel)	1. Send 0x9e 2. Send the X coordinate of the pixel 3. Send the Y coordinate of the pixel 4.Wait until receive a module available byte (E) from LED 5. Wait 2ms	void Set_Pixel( int X0_Pos, int Y0_Pos ) { Serial.write(0x9e); Serial.write(X0_Pos); Serial.write(Y0_Pos); while (Serial.read() !=E) {} delay(2); }
0x9f	Set a pixel for negative display (clear pixel)	1. Send 0x9f 2. Send the X coordinate of the pixel 3. Send the Y coordinate of the pixel 4.Wait until receive a module available byte (E) from LED 5. Wait 2ms	void Clear_Pixel( int X0_Pos, int Y0_Pos ) { Serial.write(0x9f); Serial.write(X0_Pos); Serial.write(Y0_Pos); while (Serial.read() !=E) {} delay(2); }
0xa0	Display image row by row Up Ward	1. Send 0xa0 2. Send the speed (typical time is 20ms) 3.Wait until receive a module available byte (E) from LED 4. Wait 2ms	void Display_Row_By_Row_Up_Ward( int Speed ) { Serial.write(0xa0); Serial.write(speed); while (Serial.read() !=E) {} delay(2); }
0xa1	Display image row by row Down Ward	1. Send 0xa1 2. Send the speed (typical time is 20ms) 3.Wait until receive a module available byte (E) from LED 4. Wait 2ms	void Display_Row_By_Row_Down_Ward( int speed ) { Serial.write(0xa1); Serial.write(speed); while (Serial.read() !=E) {} delay(2); }
0xa2	Display image column by column Left Ward	1. Send 0xa2 2. Send the speed (typical time is 20ms) 3.Wait until receive a module available byte (E) from LED 4. Wait 2ms	void Display_Column_By_Column_Left_Ward( int speed ) { Serial.write(0xa2); Serial.write(speed); while (Serial.read() !=E) {} delay(2); }
0xa3	Display image column by column Right Ward	1. Send 0xa3 2. Send the speed (typical time is 20ms) 3.Wait until receive a module available byte (E) from LED 4. Wait 2ms	void Display_Column_By_Column_Right_Ward( int Speed ) { Serial.write(0xa3); Serial.write(speed); while (Serial.read() !=E) {} delay(2); }
0xa4	Erase image row by row Up Ward	1. Send 0xa4 2. Send the speed (typical time is 20ms) 3.Wait until receive a module available byte (E) from LED 4. Wait 2ms	void Erase_Row_By_Row_Up_Ward( int Speed ) { Serial.write(0xa4); Serial.write(speed); while (Serial.read() !=E) {} delay(2); }
0xa5	Erase image row by row Down Ward	1. Send 0xa5 2. Send the speed (typical time is 20ms) 3.Wait until receive a module available byte (E) from LED 4. Wait 2ms	void Erase_Row_By_Row_Down_Ward( int Speed ) { Serial.write(0xa5); Serial.write(speed); while (Serial.read() !=E) {} delay(2); }
0xa6	Erase image column by column Left Ward	1. Send 0xa6 2. Send the speed (typical time is 20ms) 3.Wait until receive a module available byte (E) from LED 4. Wait 2ms	void Erase_Column_By_Column_Left_Ward( int Speed ) { Serial.write(0xa6); Serial.write(speed); while (Serial.read() !=E) {} delay(2); }
0xa7	Erase image column by column Right Ward	1. Send 0xa7 2. Send the speed (typical time is 20ms) 3.Wait until receive a module available byte (E) from LED 4. Wait 2ms	void Erase_Column_By_Column_Right_Ward( int Speed ) { Serial.write(0xa7); Serial.write(speed); while (Serial.read() !=E) {} delay(2); }
0xa8	Display image Inside Out	1. Send 0xa8 2. Send the speed (typical time is 20ms) 3.Wait until receive a module available byte (E) from LED 4. Wait 2ms	void Display_Inside_Out( int Speed ) { Serial.write(0xa8); Serial.write(speed); while (Serial.read() !=E) {} delay(2); }
0xa9	Display image Outside In	1. Send 0xa9 2. Send the speed (typical time is 20ms) 3.Wait until receive a module available byte (E) from LED 4. Wait 2ms	void Display_Outside_In( int Speed ) { Serial.write(0xa9); Serial.write(speed); while (Serial.read() !=E) {} delay(2); }
0xaa	Erase image Inside Out	1. Send 0xaa 2. Send the speed (typical time is 20ms) 3.Wait until receive a module available byte (E) from LED 4. Wait 2ms	void Erase_Inside_Out( int Speed ) { Serial.write(0xaa); Serial.write(speed); while (Serial.read() !=E) {} delay(2); }

0xab	Erase image Outside In	1. Send 0xab 2. Send the speed (typical time is 20ms) 3.Wait until receive a module available byte ('E') from LED 4. Wait 2ms	void Erase_Outside_In( int Speed) { Serial.write(0xab); Serial.write(Speed); while (Serial.read() != 'E') {} }
0xd0	Clear display	1. Send 0xd0 2.Wait until receive a module available byte ('E') from LED 3. Wait 2ms	void Clear_Display_Momeny( void) { Serial.write(0xd0); while (Serial.read() != 'E') {} delay(2); }
0xd1	Show the data in the display memory	1. Send 0xd1 2.Wait until receive a module available byte ('E') from LED 3. Wait 2ms	void Show_Display_Momeny( void) { Serial.write(0xd1); while (Serial.read() != 'E') {} }
0xd2	Scroll the whole display upward	1. Send 0xd2 2. Send the shift time (typical time is 70ms) 3.Wait until receive a module available byte ('E') from LED 4. Wait 2ms	void Scroll_Whole_Display_Memory_Up( int shift time) { Serial.write(0xd2); Serial.write(shift time); while (Serial.read() != 'E') {} delay(2); }
0xd3	Scroll the whole display downward	1. Send 0xd3 2. Send the shift time (typical time is 70ms) 3.Wait until receive a module available byte ('E') from LED 4. Wait 2ms	void Scroll_Whole_Display_Memory_Down( int shift time) { Serial.write(0xd3); Serial.write(shift time); while (Serial.read() != 'E') {} delay(2); }
0xd4	Scroll the whole display leftward	1. Send 0xd4 2. Send the shift time (typical time is 70ms) 3.Wait until receive a module available byte ('E') from LED 4. Wait 2ms	void Scroll_Whole_Display_Memory_Left( int shift time) { Serial.write(0xd4); Serial.write(shift time); while (Serial.read() != 'E') {} delay(2); }
0xd5	Scroll the whole display rightward	1. Send 0xd5 2. Send the shift time (typical time is 70ms) 3.Wait until receive a module available byte ('E') from LED 4. Wait 2ms	void Scroll_Whole_Display_Memory_Right( int shift time) { Serial.write(0xd5); Serial.write(shift time); while (Serial.read() != 'E') {} delay(2); }
0xd6	Scroll the section display upward	1. Send 0xd6 2. Send the X coordinate of up left corner 3. Send the Y coordinate of up left corner 4. Send the X coordinate of bottom right corner 5. Send the Y coordinate of bottom right corner 6. Send the shift time (typical time is 20ms) 7.Wait until receive a module available byte ('E') from LED 8. Wait 2ms	void Scroll_Section_Display_Memory_Up( int X0_Pos, int Y0_Pos, int X1_Pos, int Y1_Pos, int shift time) { Serial.write(0xd6); Serial.write(X0_Pos); Serial.write(Y0_Pos); Serial.write(X1_Pos); Serial.write(Y1_Pos); Serial.write(shift time); while (Serial.read() != 'E') {} delay(2); }
0xd7	Scroll the section display downward	1. Send 0xd7 2. Send the X coordinate of up left corner 3. Send the Y coordinate of up left corner 4. Send the X coordinate of bottom right corner 5. Send the Y coordinate of bottom right corner 6. Send the shift time (typical time is 70ms) 7.Wait until receive a module available byte ('E') from LED 8. Wait 2ms	void Scroll_Section_Display_Memory_Down( int X0_Pos, int Y0_Pos, int X1_Pos, int Y1_Pos, int shift time) { Serial.write(0xd7); Serial.write(X0_Pos); Serial.write(Y0_Pos); Serial.write(X1_Pos); Serial.write(Y1_Pos); Serial.write(shift time); while (Serial.read() != 'E') {} delay(2); }
0xd8	Scroll the section display leftward	1. Send 0xd8 2. Send the X coordinate of up left corner 3. Send the Y coordinate of up left corner 4. Send the X coordinate of bottom right corner 5. Send the Y coordinate of bottom right corner 6. Send the shift time (typical time is 20ms) 7.Wait until receive a module available byte ('E') from LED 8. Wait 2ms	void Scroll_Section_Display_Memory_Left( int X0_Pos, int Y0_Pos, int X1_Pos, int Y1_Pos, int shift time) { Serial.write(0xd8); Serial.write(X0_Pos); Serial.write(Y0_Pos); Serial.write(X1_Pos); Serial.write(Y1_Pos); Serial.write(shift time); while (Serial.read() != 'E') {} delay(2); }
0xd9	Scroll the section display rightward	1. Send 0xd9 2. Send the X coordinate of up left corner 3. Send the Y coordinate of up left corner 4. Send the X coordinate of bottom right corner 5. Send the Y coordinate of bottom right corner 6. Send the shift time (typical time is 70ms) 7.Wait until receive a module available byte ('E') from LED 8. Wait 2ms	void Scroll_Section_Display_Memory_Right( int X0_Pos, int Y0_Pos, int X1_Pos, int Y1_Pos, int shift time) { Serial.write(0xd9); Serial.write(X0_Pos); Serial.write(Y0_Pos); Serial.write(X1_Pos); Serial.write(Y1_Pos); Serial.write(shift time); while (Serial.read() != 'E') {} delay(2); }
0xda	Display quarter of display memory (Available for Mode0, 1, and 2 only)	1. Send 0xda 2. Send the quarter No. to display 3.Wait until receive a module available byte ('E') from LED Module 4. Wait 2ms	void Display_quadrant( int quadrant) { Serial.write(0xda); Serial.write(quadrant); while (Serial.read() != 'E') {} delay(2); }
0xf0	Turn display Off	1. Send 0xf0 2.Wait until receive a module available byte ('E') from LED 3. Wait 2ms	void Display_Off( void) { Serial.write(0xf0); while (Serial.read() != 'E') {} }
0xf1	Turn display On	1. Send 0xf1 2.Wait until receive a module available byte ('E') from LED 3. Wait 2ms	void Display_On( void) { Serial.write(0xf1); while (Serial.read() != 'E') {} delay(2); }
0xf2	Set the brightness of the LED Module	1. Send 0xf2 2. Send the level of brightness (0~11) 3.Wait until receive a module available byte ('E') from LED 4. Wait 2ms	void Set_Display_Brightness( int brightness) { Serial.write(0xf2); Serial.write(brightness); while (Serial.read() != 'E') {} delay(2); }
0xf3	Inverse image	1. Send 0xf3 2.Wait until receive a module available byte ('E') from LED 3. Wait 2ms	void Inverse_Image( void) { Serial.write(0xf3); while (Serial.read() != 'E') {} delay(2); }
0xf6	Change instruction mode (0 for Hex Command, 1 for AT Command)	1. Send 0xf6 2. Send instruction mode 1 3. Wait until receive a module available byte ('E') from LED 4. Wait 2ms	int Change_Display_Mode(int mode) { Serial.write(0xf6); Serial.write(1); while (Serial.read() != 'E') {} delay(2); }
0xf7	Change Display Mode	1. Send 0xf7 2. Send Display mode (0~12) 3. Wait until receive a module available byte ('E') from LED 4. Wait 2ms	void Change_Display_Mode( int mode) { Serial.write(0xf7); Serial.write(mode); while (Serial.read() != 'E') {} delay(2); }