

## SPLixel Command Summary

Command Name	Description	Byte 1	Byte 2	Byte 3	Byte 4
Set color	Only one LED	LED (1 to 64)	RED (0 to 255)	GREEN	BLUE
Set MAX LED	Highest LED on current string (1 to n)	66 (or 0x42 HEX)	1 to 64	DNC	DNC
Set ALL LEDs	Make all LEDs same color	65 (or 0x41 HEX)	RED (0 to 255)	GREEN	BLUE
Shift Down	Move all LEDs down 1 LED at a time - continuous	68 (or 0x44 HEX)	Delay (0 to 255)	DNC	DNC
Blink	Blink current LEDs on and off - continuous	69 (or 0x45 HEX)	Delay (0 to 255)	DNC	DNC
Rainbow	Fill LEDs with a rainbow from LED to LED	71 (or 0x47 HEX)	Start (1 to 60)	END (4 to 64)	Refresh (0 or 1) *
Thermometer (AKA dance party!)	Set-up A: Color of bar	72 (or 0x48 HEX)	RED (0 to 255)	GREEN	BLUE
	Set-up B: Color of Topper	73 (or 0x49 HEX)	RED (0 to 255)	GREEN	BLUE
	Set-up C: Height, Up speed, Down Speed	74 (or 0x4A HEX)	Height (1 to 64)	Up Delay	Down Delay
Dimmer	All LEDs (Only dims down)	75 (or 0x4B HEX)	% (0 to 100)	DNC	DNC
Larson Scanner	Set-up A: Color of scan	76 (or 0x4C HEX)	RED (0 to 255)	GREEN	BLUE
	Set-up B: Speed - continuous	77 (or 0x4D HEX)	Delay	DNC	DNC
Shift Up	Move all LEDs Up 1 LED at a time - continuous	78 (or 0x4E HEX)	Delay (0 to 255)	DNC	DNC
Force update	Redraw all LEDs from PIC memory	79 (or 0x4F HEX)	DNC	DNC	DNC
Shift Up 8	Moves all leds (down) 8 places	80 (or 0x50 HEX)	Refresh (0 or 1) **	DNC	DNC
ShiftIn	Add one color to the 1st LED move all	81 (or 0x51 HEX)	RED (0 to 255)	GREEN	BLUE
ShiftUpCount	Move all LEDs count times, then stop	82 (or 0x52 HEX)	Count	Delay	DNC
ShiftDownCount	Move all LEDs count times, then stop	83 (or 0x53 HEX)	Count	Delay	DNC
Load with no Update	Will change the color stored in memory but will not update the LED	LED (1 to 64) + 128	RED (0 to 255)	GREEN	BLUE
Set BAUD rate	1= 9600 Baud	84 (or 0x54 HEX)	1	255	171
	2=57600 Baud - Factory Default	84 (or 0x54 HEX)	2	254	171
	3=115200 Baud	84 (or 0x54 HEX)	3	253	171

**To use:** This list of commands are for use any time that a direct serial connection is made to the SPLixel Basic Controller. You must send the four bytes one after the other.

Eg. To set the 3rd LED to full on RED the command would look like `Serial.write(3); Serial.write(255); Serial.write(0); Serial.write(0);`

**Notes:** DNC = do not care (but a value is required)

MAX LEDs must be set before using "automatic" effects. (or they will not do anything)

If Set Color is > MAX LEDs, MAX LEDs is automatically set to Set Color value.

Minimum Rainbow size is 4. (but it will fill 6 LEDs R->G, G->B, B->R) best results choose multiples of 3 even if greater than number of LEDs.

Delay is multiples of 2ms (higher numbers = longer delay)

\* (0=yes or 1=no) \*\* (0=no or 1=yes)

