Slider Potentiometers

V_USB

POT_RED_IN_A

RED_POT

POT_GREEN_IN_A

GREEN_POT

POT_BLUE_IN_A

BLUE_POT

GND

Addressable LEDs

V_USB

BLUE
DI   DO
WS2812

GREEN
DI   DO
WS2812

RED
DI   DO
WS2812

MIXED
DI   DO
WS2812

LED_DATA_OUT

GND

USB Connector for Power

V_USB

VCC

J1

USB

VBUS
D-
D+
SHLD
GND

USB_MECH

10118193-0001LF

GND

GND

Decoupling Caps

V_USB

C2   C1
22uF   0.1uF

GND

Microcontroller

U3

MOSI   8
LED_DATA_OUT   5
                6
MISO

RST   1

VCC
PB0(MOSI/PCINT0)
PB1(MISO/PCINT1)

PB5(PCINT5/RESET)

PB2(SCK/PCINT2)   7
PB3(PCINT3/ADC3)   2
PB4(PCINT4/ADC2)   3
GND   4

SCK

ATTINY85-20SU

J2
1
2

GND

Close J2 to enable MIXED LED

After programming, close JP1

JP1

POT_BLUE_IN_A
POT_GREEN_IN_A
POT_RED_IN_A

GND

Jonathan Moyes

TITLE: Color-Experimentation

Date: 11/26/22 4:36 PM   Sheet: 1/1

TODO:
 - Fix slider pot mechanical pins (L/R switch)
 - Can we support either the SU or MU ATTINY variants simultaneously with overlapping footprints?
 - Consider adding 3x AAA battery holder? Keystone 2479 looks like it could fit.

CHANGELOG

v1.1 -> v1.2
 - Removed unnecessary solder jumpers
 - Fixed incorrect placement of JP1. Now correctly disconnects slider pot from SCK for programming.
- Removed LED decoupling caps (not needed)
- Moved USB connector closer to board edge to solve mech interference
- Remove R1 (Mixed LED jumper pullup), use internal pullups in firmware
- Moved C1, C2 farther apart to ease assembly