

27 August 2013

Pictures and current state:

<http://flexiblestream.org/project/horizon>

Currently only one rotary encoder pushbutton to access all functions.

NEW:

For better user experience:

More hardware in the next prototype:

- two rotary encoder pushbuttons (one for every color)
- one extra push button

Replacement of BlinkM with 3 MOSFET for each color at least 2 Ampere (with 12 Volt) for each color.

Smooth fading of colors,

similar to functions in Arduino sketch on:

<http://flexiblestream.org/project/horizon>

Smooth fading of colors means:

Changing of color should not be realised/visible for ones eyes because the steps are tiny.

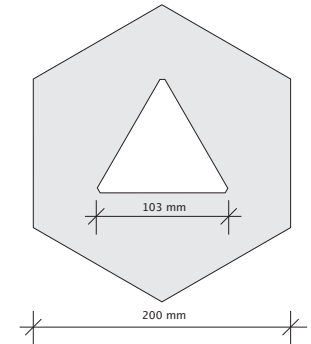
PWM:

If using PWM to drive RGB-LED no flicker/flare/glint should be visible

HARDWARE

Light

- 2 pieces RGB-LED-Cluster →
each with: 930 Lumen
2,1 Ampere
25,2 Watt
- Pull Cord Button



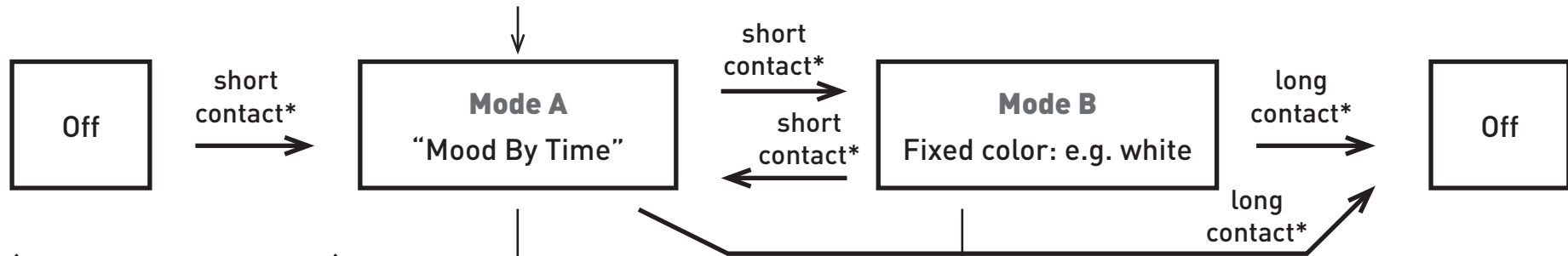
Control-Box

- 2 pieces Rotary Encoder Pushbutton
- Pushbutton (same hook-up as Pull Cord Button)
- Reset-Pushbutton
- “Arduino-compatible” with:
 - Attiny
 - usb socket
 - RTC or similar with battery
 - 6 pieces MOSFET
 - ... what else?
- 4 pieces 7 Segment Display (or OLED-display) to set time and for menu feedback, e.g.: “now adjusting hue of light 1”, “color saved” ...

Power supply

~55 Watt

Power on, Arduino Start or Reset



(contact* = on push button)

main street

side street:

entered by pushing or turning one of the Rotary Encoder Pushbuttons

Rotary Encoder Pushbutton 1 or 2: push or turn

Brightness

Rotary Encoder Pushbutton: long push

Rotary Encoder Pushbutton: 1. short push 2. turn

Saturation

Rotary Encoder Pushbutton: long push

Rotary Encoder Pushbutton: 1. short push 2. turn

Hue

Rotary Encoder Pushbutton: long push

Save HSB-Value for:
Mode A (color for present time on all following days)
or
Mode B (new fixed color)

After save: back to previous menu on the main street

Rotary Encoder Pushbutton: 1. short push 2. turn