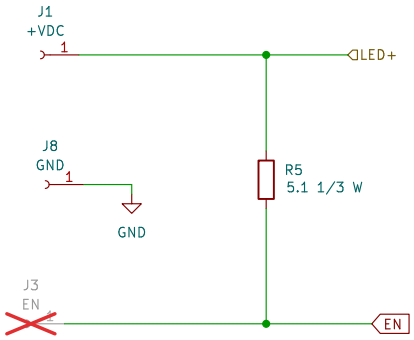
Input voltage: 12 V (3 Led)
Minimum and maximum voltage depends on the LED configuration

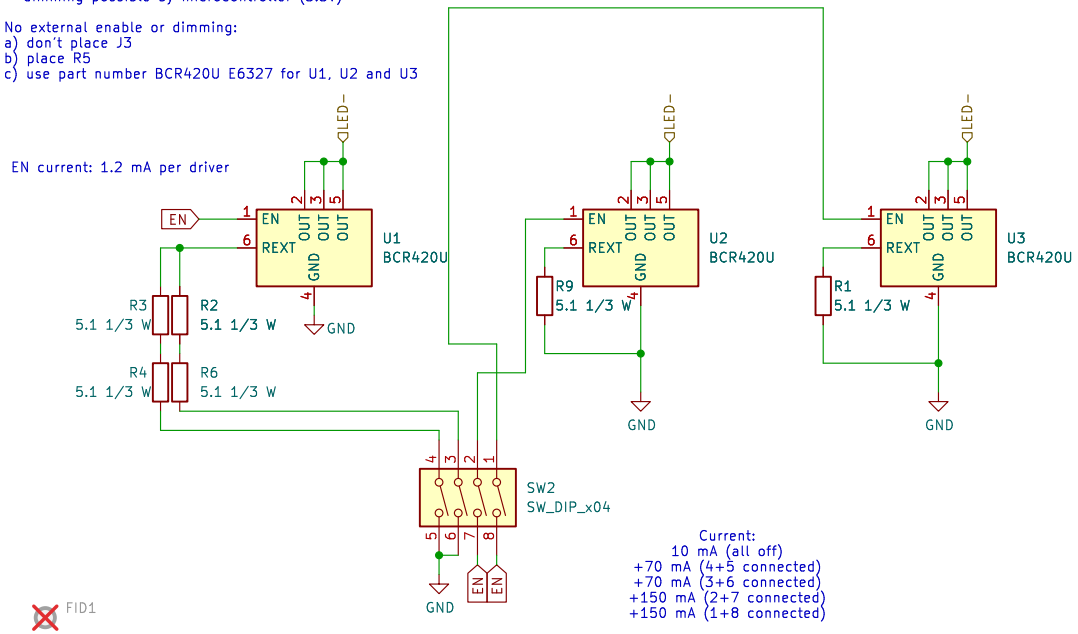
USE IMS (insulated metal substrate) PCB material

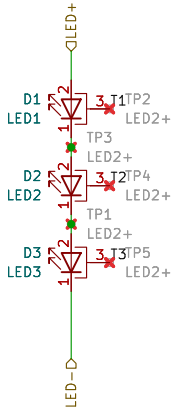


There are two possible ways to assemble the mothbeam:

External enable input or PWM dimming is desired:
- place connector J3
- don't place R5
- use part number BCR421U E6327 for U1,U2 and U3
- dimming possible by microcontroller (3.3V)

No external enable or dimming:
a) don't place J3
b) place R5
c) use part number BCR420U E6327 for U1, U2 and U3





LEDs (all 3535 form factor):

A) Würth Elektronik Part Numbers:
- Deep Blue (450 nm): 150353DS74500
- Blue (460 nm): 150353BS74500
- White (158353060 Cool White)
- White (158353050 Daylight)
- White (158353040 Moonlight)
- Green (150353GS74500 525 nm)
- Red (150353RS74500 625 nm)
- UV 365: 15335337AA350
- UV 385: 15335338AA350
- UV 395: 15335339AA350
- UV 405: 15335340AA350
- Far Red 730: 150353FS74500

Testpoints for LEDs are to check for correct soldering and possible shorts below the LEDs between anode, cathode and thermal pad. Also, Vf for individual LEDs can be measured.

CAUTION – UV

- UV LEDs emit high intensity UV light
- Do not look directly into the UV light during operation.
This can be harmful to your eyes and skin.
- Wear protective eyewear to avoid exposure to UV light
- Do not view directly with optical instruments
- Keep out of reach of children

AVOID DIRECT EYE AND SKIN EXPOSURE TO UV LIGHT !

FID1
FID2
FID3

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Title: MothBeam12V

Size: A4	Date: 2025-07-02	**Rev: A**
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