



- Component list (reichtelt)
- C1, C2, C3, C4, C5 100nF X7R-G0805 100N
  - C6, C7 22pF NPO-G0805 22P
  - C8 470uF/10V NHG-A 470U 10
  - C9 1uF KEM X5R0805 1.0U
  - D1, D2 1N4148 1N 4148 SMD
  - IC1 ATmega328p ARD ATMEGA 328
  - IC-Socket GS 28-S
  - IC2 6N137 6N137S EVL
  - IC3 LM393 LM 393 D SMD
  - J1-J3 Header 2-pin MPE 087-1-002
  - L1 Heartbeat EVL 17-21/R6C-A (rot)
  - L2 LocoNet Act EVL 17-21/SYGC (orange)
  - L3 LED EVL 17-21UYC/S5 (gelb)
  - L4 Sim EVL 17-21/T1D-C (weiß)
  - L5 Inp EVL 17-21/BHC-A (blau)
  - L6, L7 WS2812 5050 WH AliExpress - 32623583544
  - L16MHz 16,000-HC49-SMD
  - R1 10K SMD-0805 10.0K
  - R2 470 SMD-0805 470
  - R3 1K SMD-0805 1.00K
  - R4 27K SMD-0805 27.0K
  - R5 39K SMD-0805 39.0K
  - R6 150K SMD-0805 150K
  - R7 4K7 SMD-0805 4.70K
  - R8 220K SMD-0805 220K
  - R9 47K SMD-0805 47.0K
  - R10 470 SMD-0805 470
  - R11 820 SMD-0805 820
  - R12 1K SMD-0805 1.00K
  - R13 47 SMD-0805 47.0
  - R15 75 RND 1550805 AT
  - R16 75 RND 1550805 AT
  - R17 470 SMD-0805 470
  - R18 1K SMD-0805 1.00K
  - R19 1K SMD-0805 1.00K
  - R20 N/A
  - R21 10K SMD-0805 10.0K
  - T1 BC817 BC 817-16 SMD
  - S1, S2, S3 Switch AliExpress - 1005001265569844 (weiß)
  - S4 Switch AliExpress - 1005001265569844 (rot)

Modifications:  
01-02-2023: IC2 package change from SO-8 to SOP-8 (SMD DIL size)

J1: Place jumper only if L6 and L7 are NOT installed  
(R15, R16, C14 and C5 are therefore unnecessary)  
J2: When this jumper is installed, nothing may be connected to the Neopixel Bus  
Could be used for test purposes, it connects Out L6 with In L7

| Table              |                        |
|--------------------|------------------------|
| Day / Night Sensor |                        |
| LDR                | R14* (C9* N/A)         |
| 5506               | 1%, 0.25W, 4K7 (Metal) |
| 5516               | 1%, 0.25W, 8K2 (Metal) |
| 5526               | 1%, 0.25W, 15K (Metal) |
| 5528               | 1%, 0.25W, 15K (Metal) |
| 5537               | 1%, 0.25W, 33K (Metal) |

| Modifications |      | Date  | Name       | Description           | Page no.              |
|---------------|------|---|------------|-----------------------|-----------------------|
| Date          | Name | 1.0   | 14-01-2023 | Tmaa                  | MobaLedLib UNO Shield |
|               |      | 1.1   | 01-02-2023 | Tmaa                  |                       |
|               |      | <a href="https://www.stummiforum.de">https://www.stummiforum.de</a> |            | Schematic no.         | 1                     |
|               |      | (c) 2018 Hardi - Design HW & SW                                     |            | JLPCPCB Y24-34443978A |                       |