## Seven Segement Displays **Arduino** U1 ATmega328P-AU D1 KW4-566CVB RED 17 D13(SCK) SER\_CLK 16 D12(MISO) SER\_MISO PB5(SCK) D2(INTO) O TP3 INTO SER\_LINK\_5 14 SER DEBUG\_PIN O TP4 Debug .5 D11(MOSI) SER\_MOSI SER\_LATCH MODE\_SW PB2(CS SER\_CLK DP2 DP3 SER\_LATCH ENABLE DEBUG\_PIN E1\_SW E2\_SW PC5(SCL/ADC5) +5V AREF\_20 +5V C4 0.1uF +51 SER\_CLK RESET GND GND ROLL\_BTN RESET 29 RESET(PC6) D2 KW4-566CVB GREEN RESET\_BTN U3 D2(INTO) D1(TX) O TP1 TX 3 GND 5 GND DO(RX) O TP2 RX SER\_CLK /\_/ col /\_/ DP2 DP3 SER\_LATCH ENABLE +5V C5 0.1uF GND GND USB\_C\_Receptacle\_USB2.0 VBUS SW1 SW\_SPST +5V H1 H2 H3 H4 D3 KW4-566CVB YELLOW 0 SER\_LINK\_3 14 SER & SW\_Push RESET\_BTN SER\_CLK DP2 DP3 SW\_Push SER\_LATCH 12 ENABLE 13 ROLL\_BTN +5V C6 0.1uF +5V C6 0.1L. QH' 9 SER\_LINK\_4 74HC595 D4 KW4-566CVB BLUE **Encoder Multiplexing** C10 0.1uF +5V SER\_LINK\_2 14 SER SER\_CLK E1 Rotary\_Encoder\_Switch E2 Rotary\_Encoder\_Switch E1\_DIR B E1\_CLK A E2\_CLK\_A S1 E1\_SW SER\_LATCH ENABLE E2\_DIR B E2\_CLK E2\_DIR E1\_CLK E1\_DIR +5V C7 0.1uF QH' 9 SER\_LINK\_3 SER\_LATCH E4\_CLK E4\_DIR E3\_CLK GND 74HC595 SER\_CLK Rotary\_Encoder\_Switch Rotary\_Encoder\_Switch E3\_CLK\_A E4\_CLK\_A E3\_CLK A C C E3\_DIR B

Max Proskauer

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Title: Magic: The Gathering Life Counter

Size: USLedger | Date: 2021-02-10 | Rev: 2.0 |
KiCad E.D.A. kicad (5.1.5)-3 | Id: 1/1 |

15 DRAIN5 16 DRAIN6 17 DRAIN7 SRCLR 8 10k +5V R2

18 SER\_LINK\_2

SER\_MOSI

SRCLR 8 10k +5V

18 SER\_LINK\_1

RCLK 12 SER\_LATCH 9 ENABLE

RCLK 12 SER\_LATCH 9 ENABLE

7 DRAIN3 14 DRAIN4 15 DRAIN5 16 DRAIN6 17 DRAIN7

ENABLE