

1	2	3	4	5
A	Sheet: PeripheralBoard		Sheet: MainBoard	
B	File: PeripheralBoard.sch		File: MainBoard.sch	
C				
D				
1	2	3	4	5

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Created by Ben Reeves

Sheet: /	
File: JNTUB.sch	
Title: JoyfulNoise Tiny Utility Board	
Size: USLetter	Date: 2021-01-17
KiCad E.D.A. kicad (5.1.9-0-10_14)	Id: 1/3

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Sheet: /

File: JNTUB.sch

Title: JoyfulNoise Tiny Utility Board

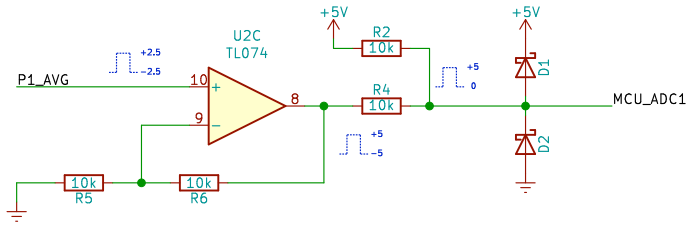
Size: USLetter | Date: 2021-01-17

KiCad E.D.A. kicad (5.1.9-0-10_14)

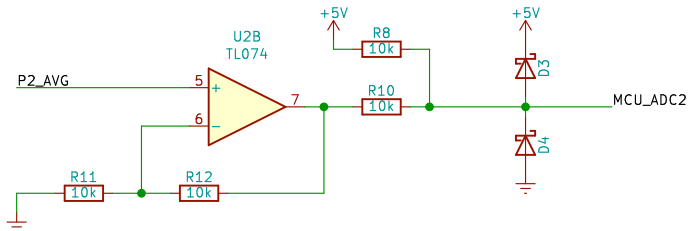
Rev: 0.2

Id: 1/3

PARAM 1



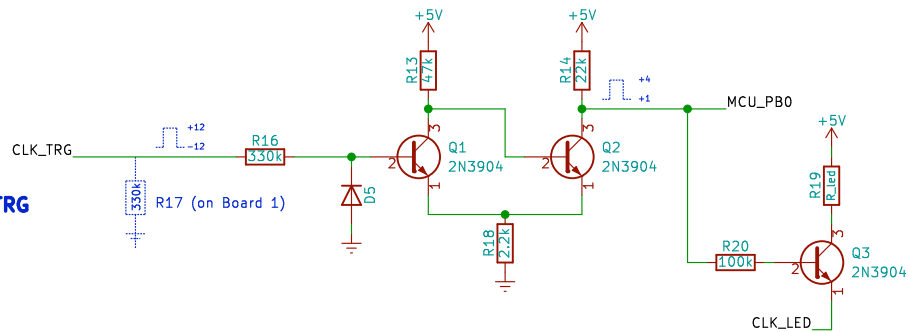
PARAM 2



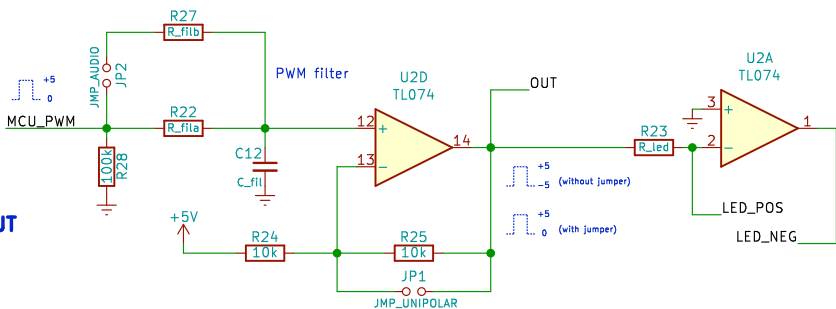
PARAM 3



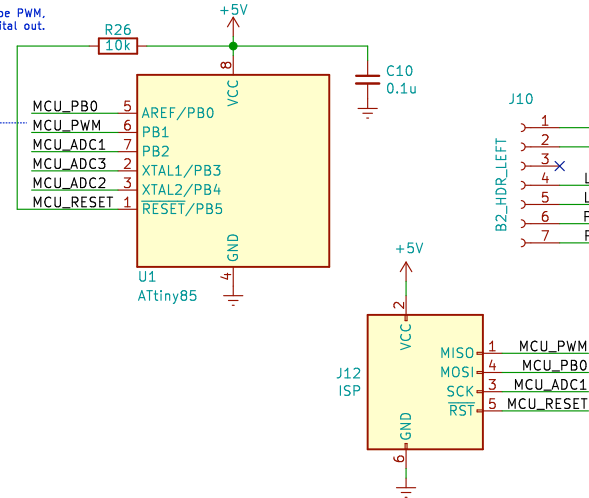
CLK/TRG



OUTPUT



Note: might not be PWM.
might just be digital out.



NOTES:

- R_led: Will depend on the color & desired brightness. I use 5.6k for my red LEDs.
- R_fila/R_filb/C_filt: Set for desired PWM filter frequencies.
I use: R_fila = 68k R_filb = 8.2k C_filt = 2.2n
With these values, the cutoff frequencies are:
1 kHz (JMP_AUDIO not set)
9.9 kHz (JMP_AUDIO set)
- 10k resistors throughout can be replaced with anything 10k-100k.
- Regular switching diodes (e.g., 1N4148) okay for D1, D2, D3, D4.
- Output is bipolar by default, scaled to -5V/+5V.
Place JMP_UNIPOLAR to change output range to 0V/+5V.

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Sheet: /MainBoard/

File: MainBoard.sch

Title: JoyfulNoise Tiny Utility Board – Board 2 – Main Board

Size: A4 Date: 2021-01-17

KiCad E.D.A. kicad (5.1.9-0-10_14)

Rev: 0.2

Id: 3/3