

## Main Circuit

The Main Circuit diagram illustrates the implementation of the three op-amp stages:

- U1.1 (TL084CN):** A voltage follower configuration. The input is connected to the non-inverting input (+). The output is connected to the inverting input (-) through a feedback capacitor  $C1$  (10nF). The output is also connected to the input through a resistor  $R3$  (1k).
- U2.1 (TL084CN):** An inverting amplifier configuration. The input is connected to the inverting input (-) through a resistor  $R4$  (3k). The non-inverting input (+) is connected to ground. The output is connected to the input through a feedback resistor  $R5$  (1k).
- U3.1 (TL084CN):** A non-inverting amplifier configuration. The input is connected to the non-inverting input (+). The inverting input (-) is connected to ground through a resistor  $R6$  (1k). The output is connected to the input through a feedback resistor  $R7$  (1k). A capacitor  $C2$  (1uF) is connected to the non-inverting input (+) to ground.

The output of the third stage (U3.1) is the PWM signal.

# CONNECTER

The diagram illustrates a connector with two female headers, P1 and P2, each labeled "Female header1\*2P".

- P1 Header:** A 2-pin header. Pin 1 is connected to VCC (represented by a blue arrow pointing to the right). Pin 2 is connected to GND (represented by a blue arrow pointing to the right).
- P2 Header:** A 2-pin header. Pin 1 is connected to PWM (represented by a blue arrow pointing to the right). Pin 2 is connected to Vin (represented by a blue arrow pointing to the right).

The circuit is enclosed in a dashed red border.

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