

WALKMAN MOTOR CONTROL

Converts eurorack control voltage (CV) in, to PWM out for motor speed control
A potentiometer for a speed knob sets base speed.

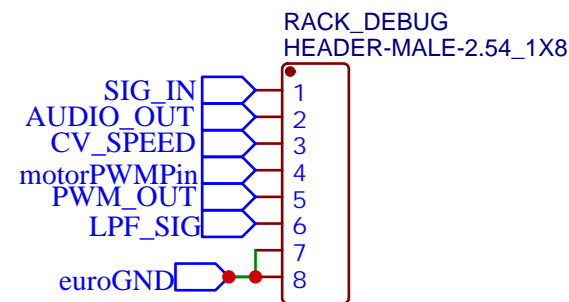
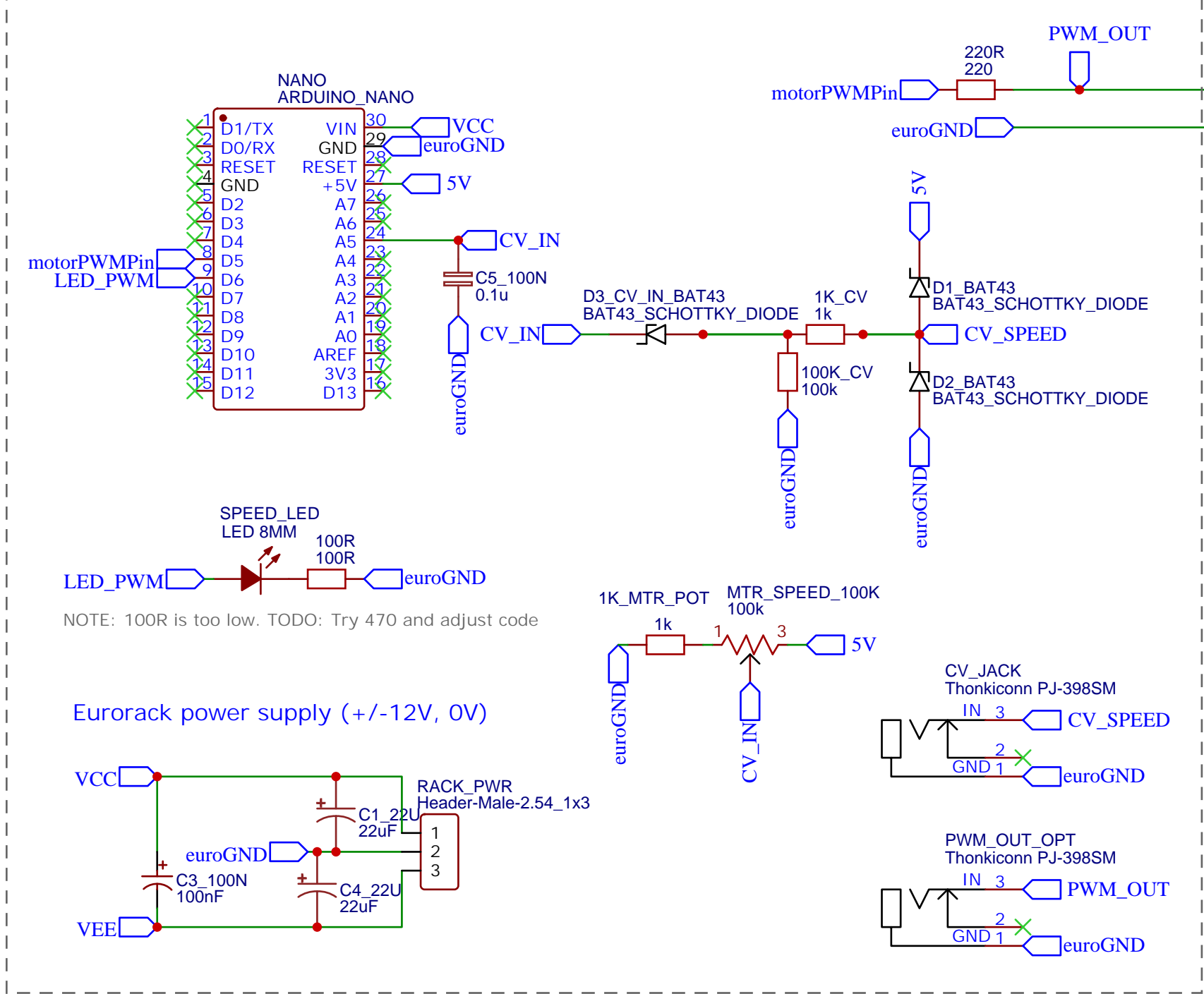
The diagram illustrates the Walkman Motor Control circuit. It features an Arduino Nano connected to a Eurorack power supply (+/-12V, 0V). The CV input is connected to the Arduino's A0 pin. The potentiometer is connected to the CV input and the Arduino's A0 pin. The motor is connected to the Arduino's motorPWMPin and euroGND. The PWM output is connected to the motor's PWM pin and euroGND. The circuit also includes a 100R resistor and a 100nF capacitor for the LED.

NOTE: 100R is too low. TODO: Try 470 and adjust code

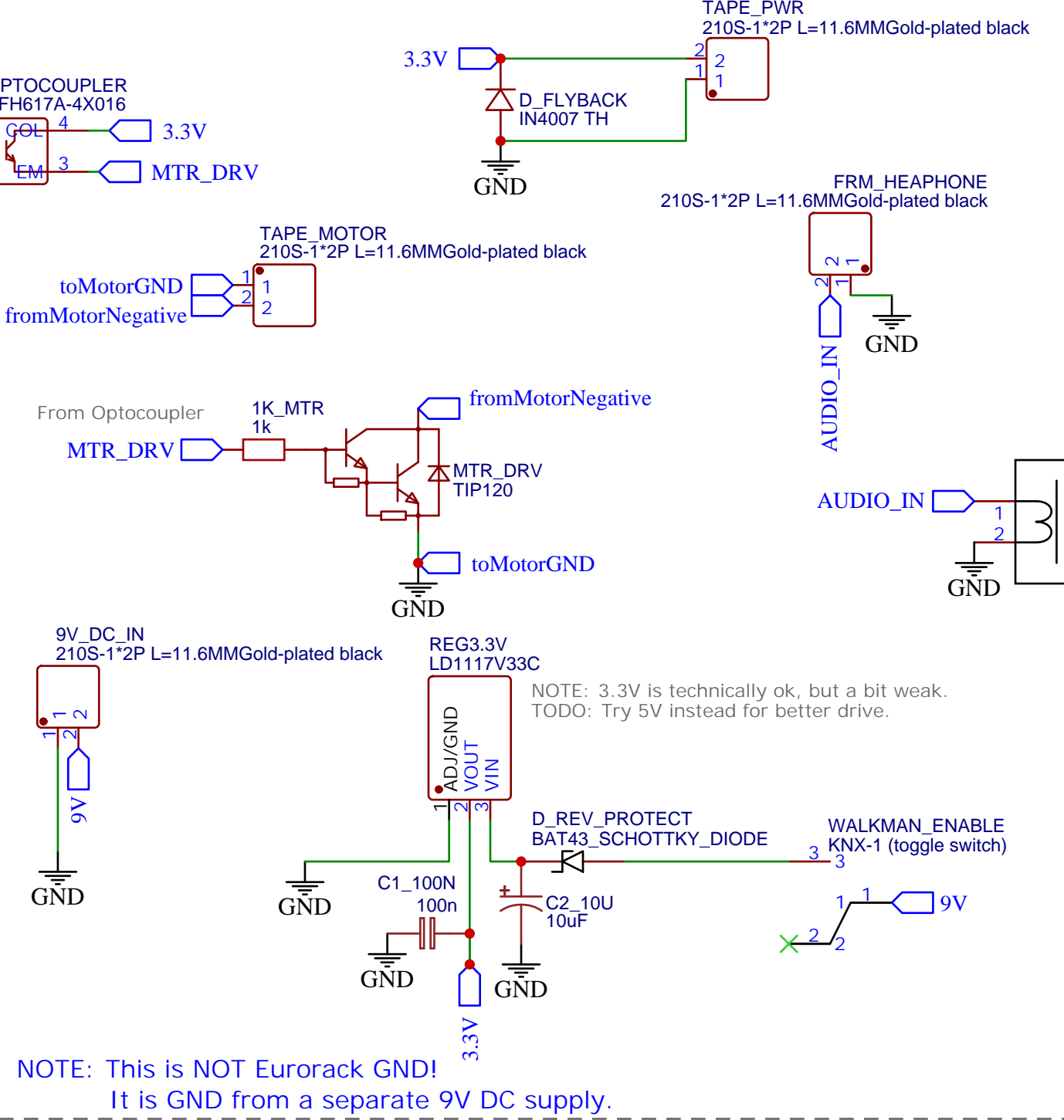
Eurorack power supply (+/-12V, 0V)

The diagram shows the Eurorack power supply circuit. It includes a VCC pin connected to the positive rail, a VEE pin connected to the negative rail, and a euroGND pin connected to the 0V rail. The power supply is connected to the Arduino Nano's VIN pin, and the ground is connected to the GND pin. The circuit also includes a 100nF capacitor (C3) and a 22uF capacitor (C1) for filtering.

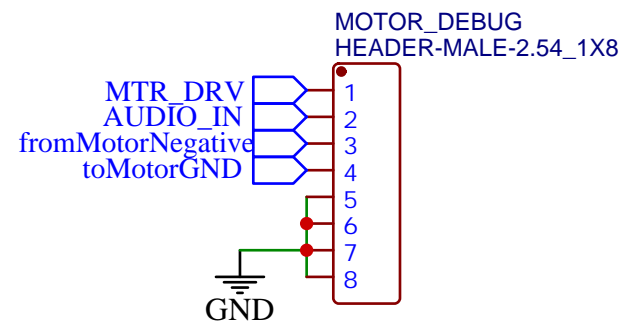
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[illegible]

Galvanically separated from the rest of the circuit



NOTE: This is NOT Eurorack GND!
It is GND from a separate 9V DC supply.



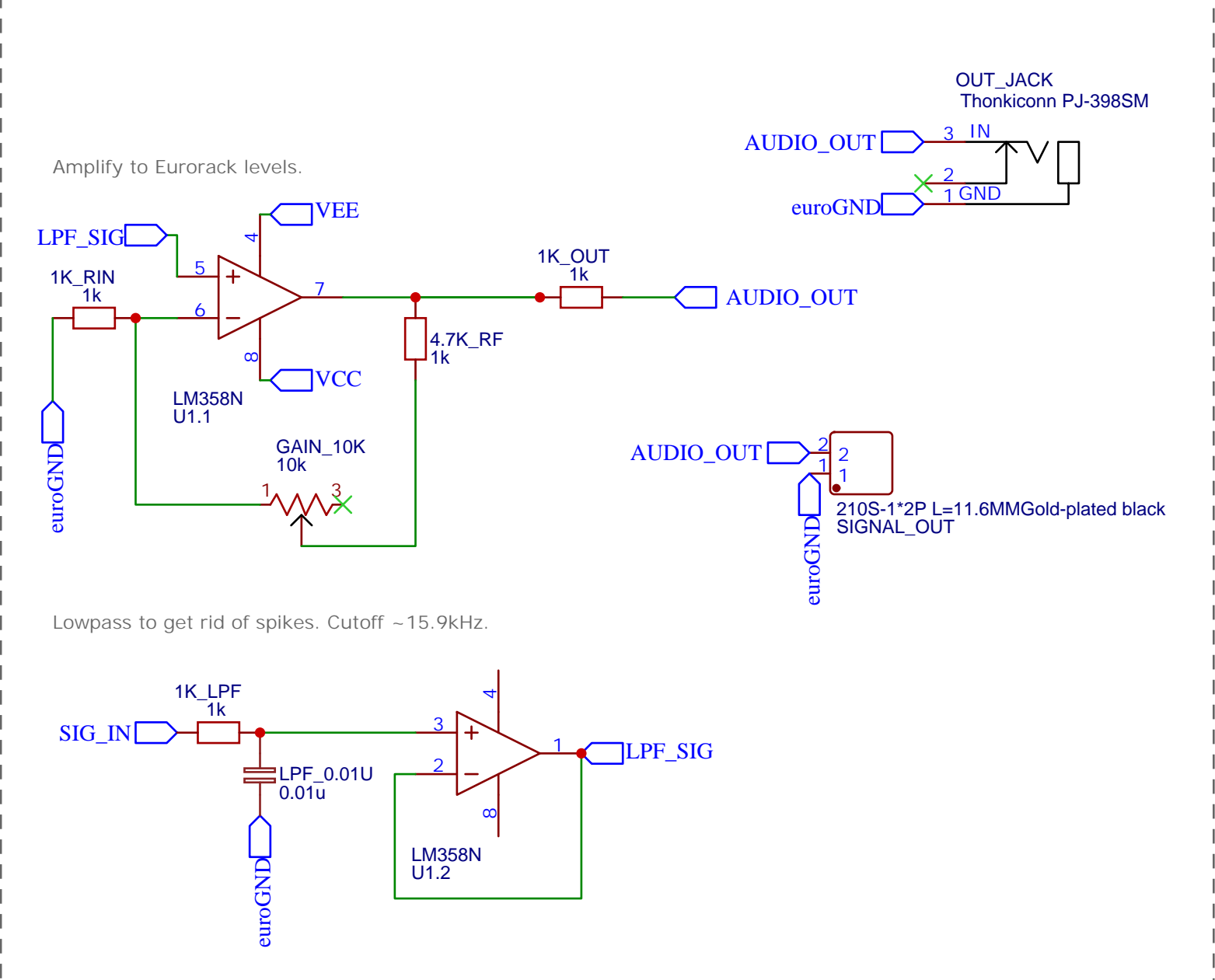
AUDIO GAIN STAGE

Brings headphone level (~1Vpp) to Eurorack level (~10Vpp).


Amplify to Eurorack levels.

Lowpass to get rid of spikes. Cutoff ~15.9kHz.

- Brings headphone level ($\sim 1\text{Vpp}$) to Eurorack level ($\sim 10\text{Vpp}$).



Lowpass to get rid of spikes. Cutoff ~15.9kHz.

TITLE: Walkman Motor		REV: 2.0.0
	Company: Expressive Circuits	Sheet: 1/1
	Date: 2022-08-23 Drawn By: aweijnitz	