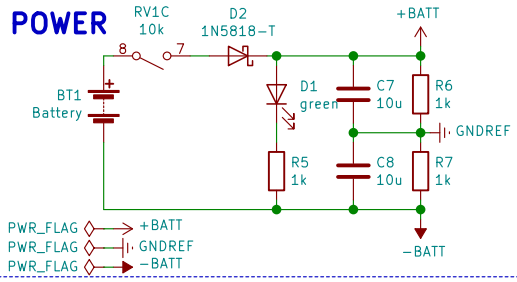
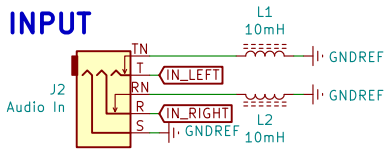
POWER



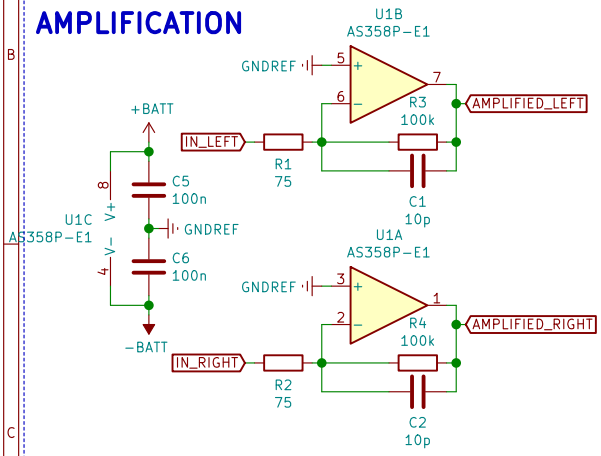
The battery is connected to the circuit via a protective MOSFET and a switch. From the + and − we generate the ground reference with a voltage divider made of two 100k resistors. A LED shows whether power is applied.

INPUT



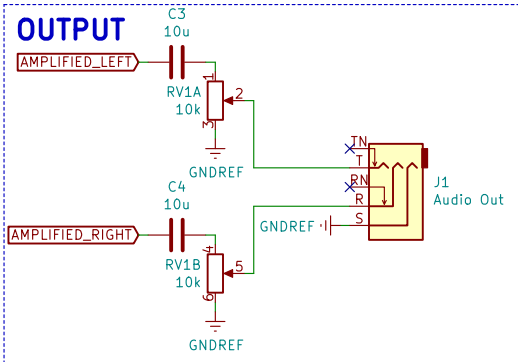
The input signal is either generated by the two coils picking up oscillating magnetic fields or can be fed in via the 3.5mm stereo jack.

AMPLIFICATION



A dual Op-Amp aplifies the left and right part of the signal seperately. The ratio of the resistors determine the gain. In this case the gain is 100e3/75 = 1333.3. Meaning that 1mV at the input gives 1.3V at the output. Two bypass capacitors supply current in cases of sudden demand. The two capacitors in parallel to the resistors smooth out the signal.

OUTPUT



The amplified signal is fed into a dual potentiometer for attenuation. The potentiometer also sports a switch to turn the circuit on and off.

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