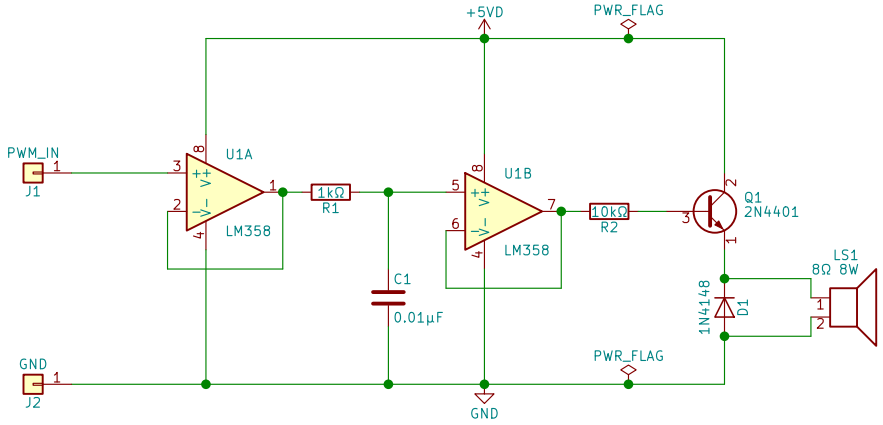
This schematic is used with my Raspberry Pi (RasPi) project, Sound Box.

* Connect PWM_IN (J1) with GPIO 12 or 13 of RasPi.
* Connect GND (J2) with any ground pin of RasPi.
* U1A is a buffer, made of a voltage follower. RasPi can drive with the least current for stability.
* R1, C1, and U1B make a low-pass filter. The cut-off frequency is appx. 16000 Hz.
  Optional: A 10KB variable resister next to R1 in series
* R2, Q1, and D1 make a speaker driver. If you would like to change the drive-power, change the resistance of R2.
  Optional: A 100KA variable resister next to R2 in series
* Q1 is a low frequency amplifier or an audio driver. Several amplifiers/drivers exist, e.g., 2SC2120.



In this schematic, the speaker driver don't cut direct current.
If you would like to cut direct current,
you need to apply a transformer.
Note that this schematic assumes coils as non-ideal.
That is, coils have impedance for direct current.

Check if your speaker smokes on driving.
If so, immediately stop using your speaker for safety.

This schematic is exempt from warranty, responsibility, and liability from any kind and any damage.

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Title: Sound System for PWM Output

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