



A BASIC GRAPHIC EQUALIZER

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INTRODUCTION

I've loved music since I was young, particularly DJ sets and mixes

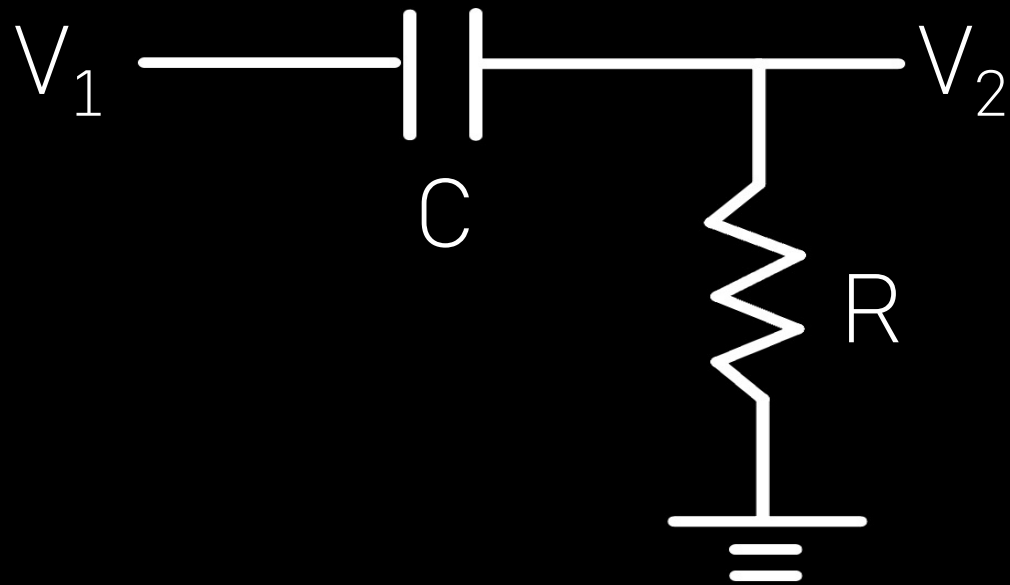
Always wondered how artists would change the music with the devices they have

Graphic Equalizers are the easiest and most frequently used device to mix music

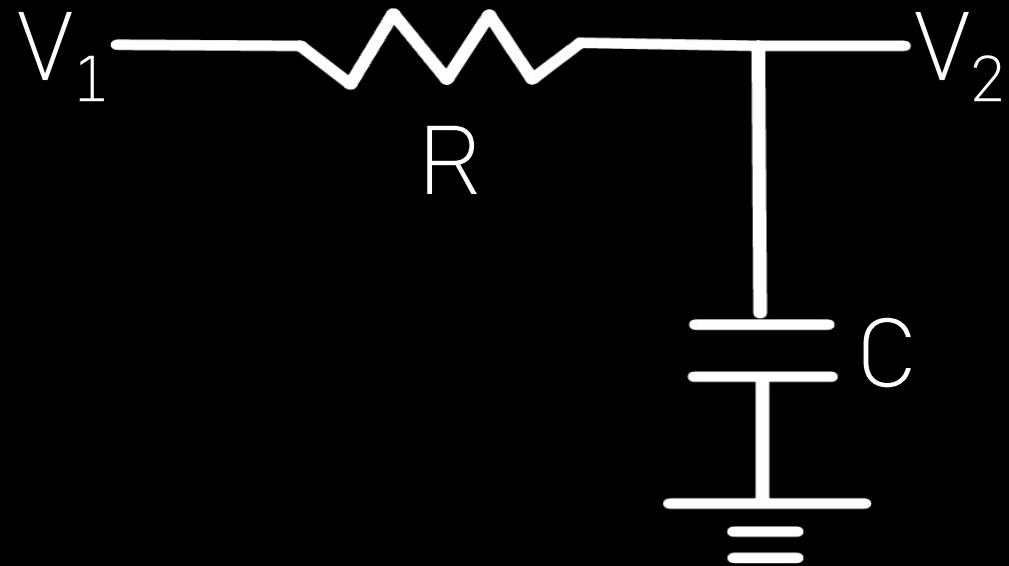
Allow the user to change the gain of frequency bands

BASIC BUILDING BLOCKS

High Pass Filter



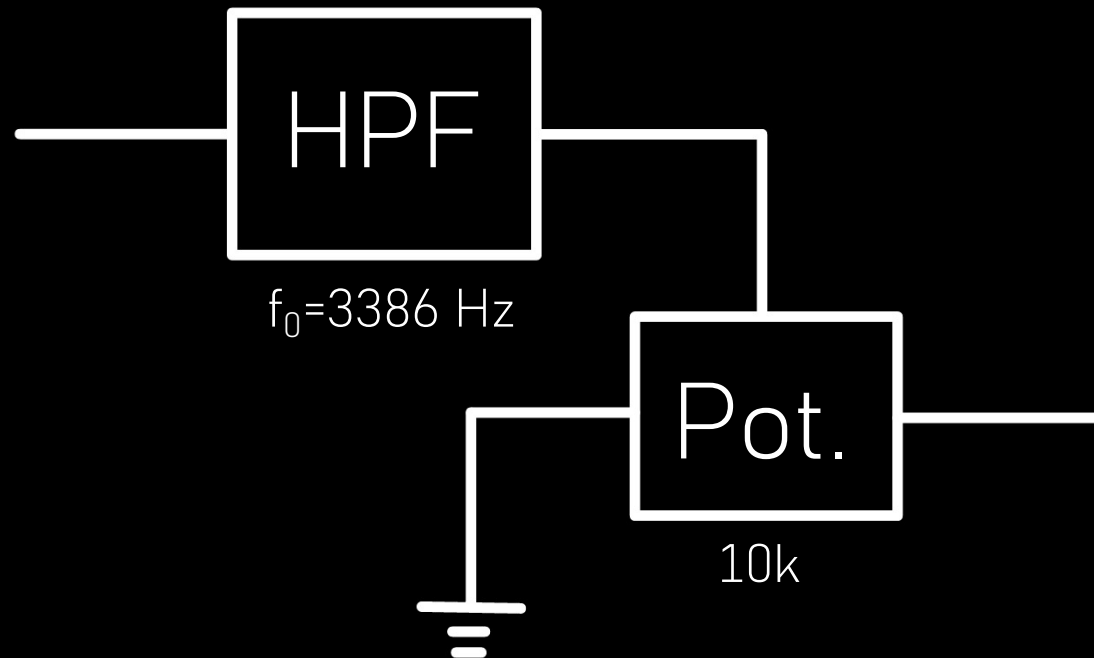
Low Pass Filter



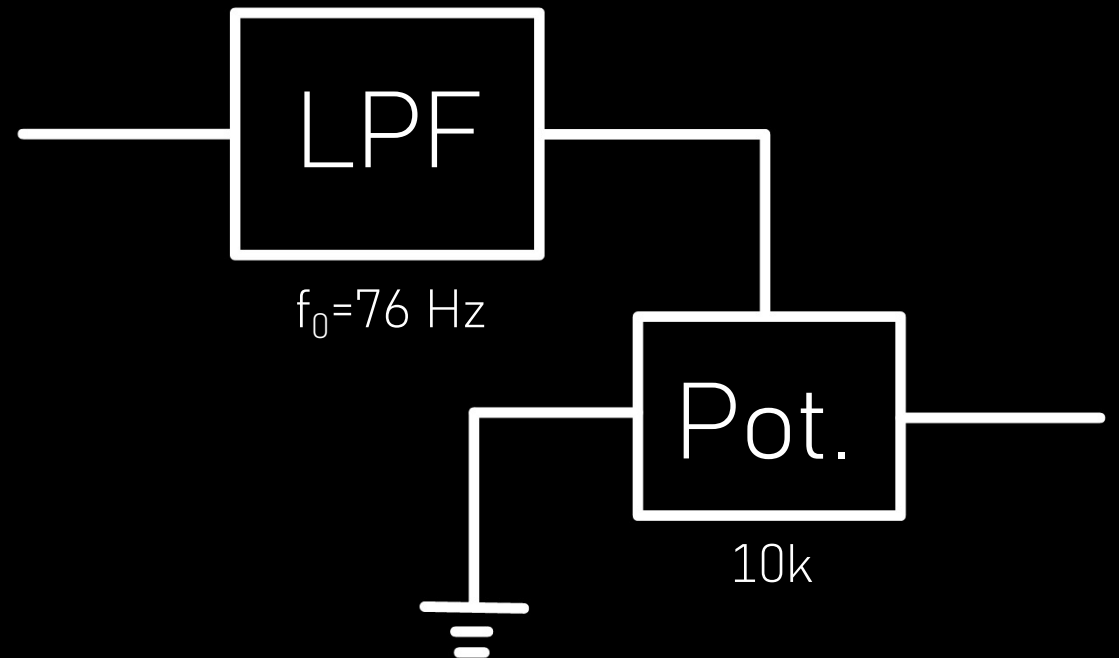
$$f_0 = \frac{1}{2\pi RC}$$

FILTER SCHEMATICS

Treble Adjustor

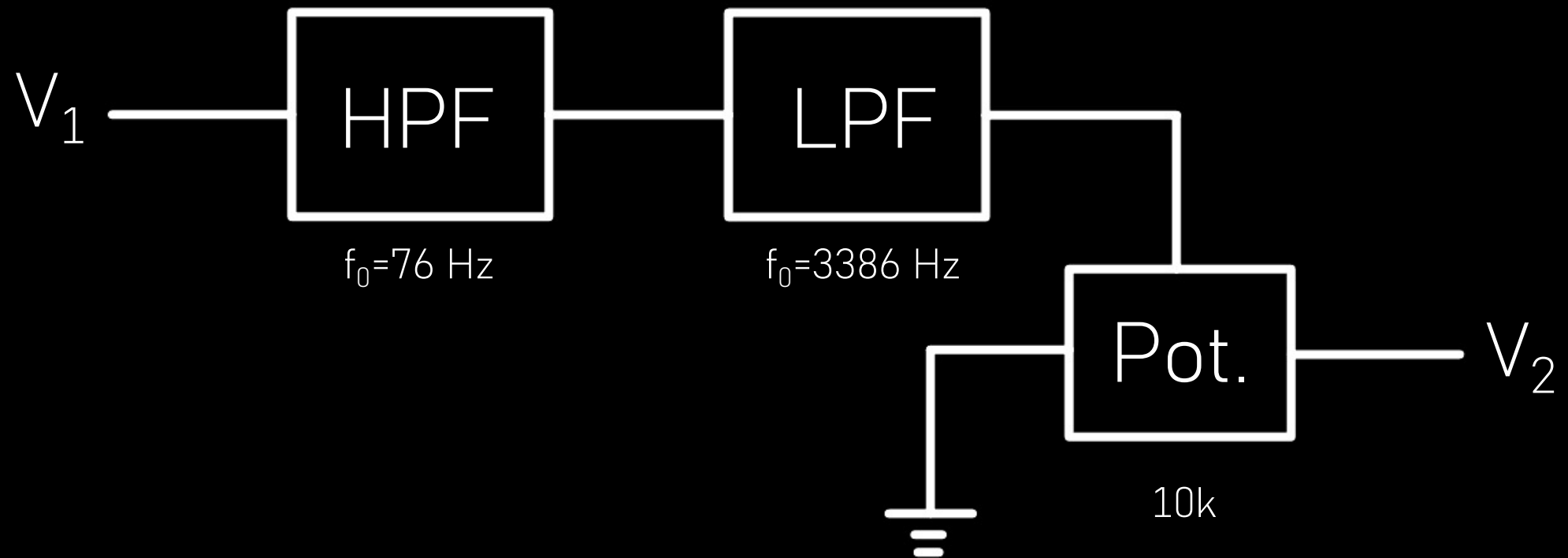


Bass Adjustor

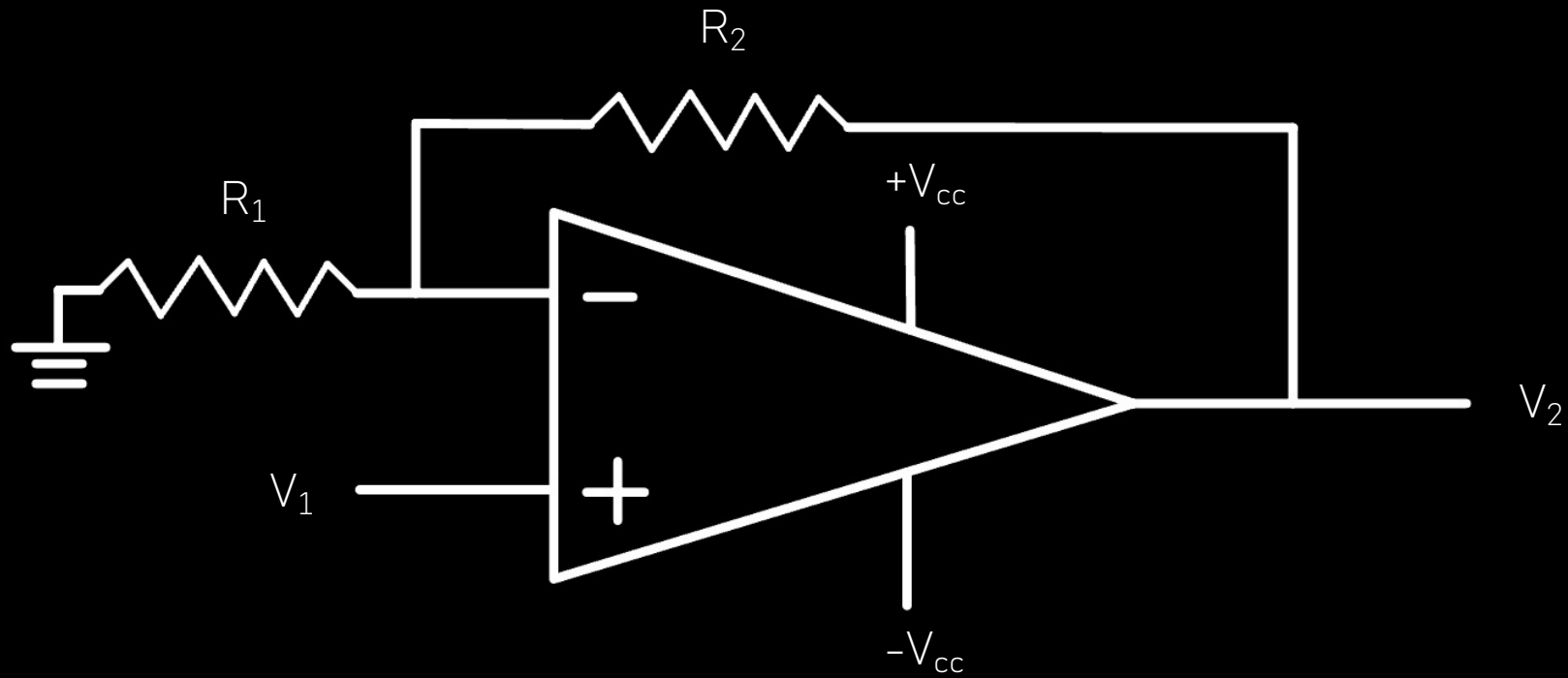


FILTER SCHEMATICS

Band Pass Adjustor



SOLVING THE GAIN PROBLEM



$$\text{Gain} = R_2/R_1 + 1$$

COMPLETE BLOCK DIAGRAM

