

# circuitikz Op Amp Examples

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## 1 Introduction

In this  $\text{\LaTeX}$  document, I provide examples of circuit drawings.

## 2 Ideal Op Amps

Op amp circuits can be *very* tricky to draw. Here are a few examples.

### 2.1 Op amp only

Figure 1 provides an example of a circuit with an op amp, disconnected from any other circuit.

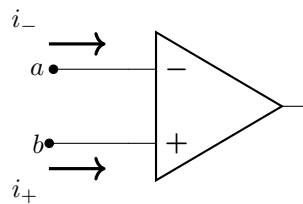


Figure 1: Basic op amp.

### 2.2 Buffer Op Amp

Figure 2 shows a basic buffer circuit.

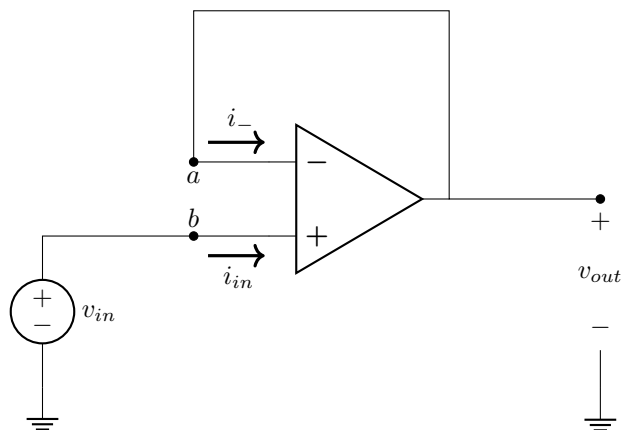


Figure 2: This circuit is a basic buffer circuit. No feedback or input resistance is included.

## 2.3 Non-inverting Op Amp

Figure 3 shows a basic inverting op amp circuit.

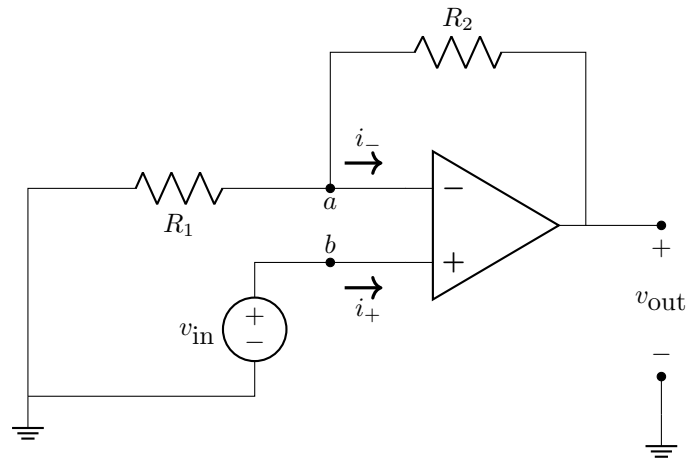


Figure 3: Non-inverting op amp.

## 2.4 Inverting op amp

To make an inverting op amp, you can use the same techniques as before. If you wish to swap the inverting and non-inverting terminals, you can use the `yscale=-1` optional argument for the op amp (StackExchange thread link).

## 3 Quantum Circuits

This is a system I worked out to draw quantum circuits before I learned about the `quantikz` package. A basic circuit is shown in Figure 4.

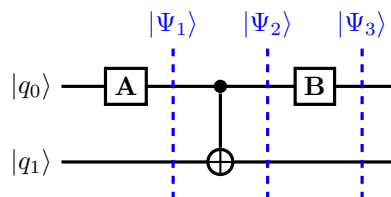


Figure 4: This is a basic quantum circuit.