

# ELEC2205 D3 – Two-Stage Amplifier Design

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## Abstract

## 1 Theoretical Design

### 1.1 Voltage Gain Derivation

#### 1.1.1 Stage 1

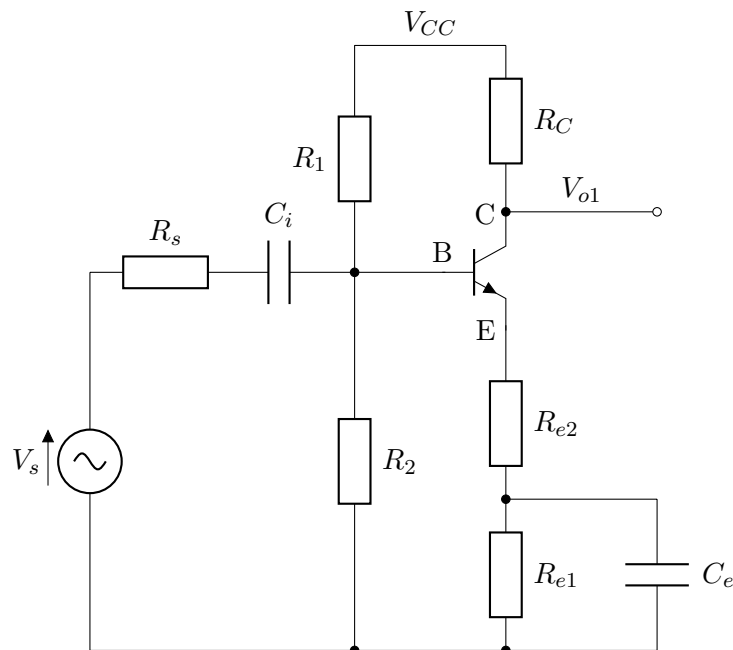


Figure 1: Circuit diagram of the first stage of the amplifier.

In order to derive the voltage gain of this circuit, we need to analyse it using a small signal model. The hybrid- $\pi$  model will be used.

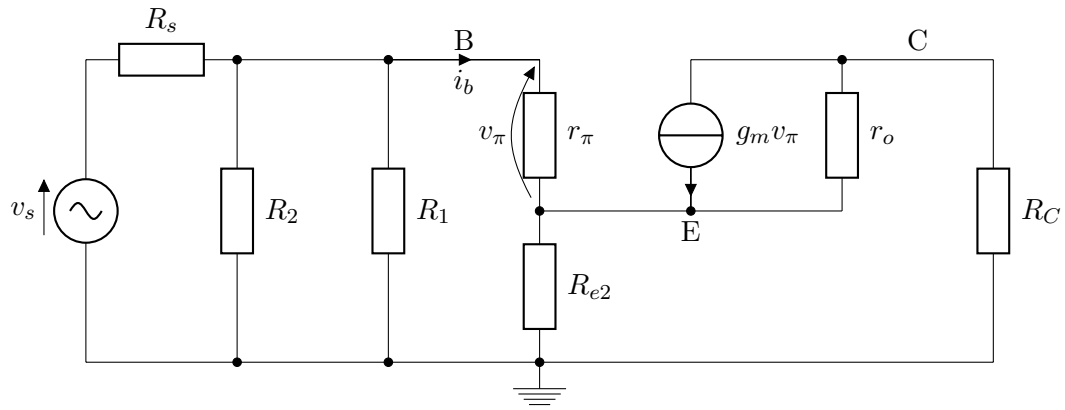


Figure 2: Hybrid- $\pi$  model of the first stage of the amplifier.

## 2 Voltage Gain Measurement

## 3 Impedance Measurement

## 4 Reflection or w/e

## Appendix A Some appendix

## References