

# IN3170 V24 - Lab 3

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## 1 Introduction

## 2 Theory

### 2.1

## 3 Materials and Methods

### 3.1 Equipment

Component	Model	Quantity
Resistor	100k $\Omega$	1
Hex Inverter IC	74HCT14	1
Copper wires	-	12
Printed Circuit Board	-	1
Soldering iron	-	1
Soldering wire	-	1
Oscilloscope	HP54622	1
Waveform generator	HP33120	1
Voltage source	HPE3631	1
Computer w/ "Cadence Virtuoso"	6.1.7	1
NMOSFET*	TSMC 65nm	3
Waveform generator*	-	2
Capacitor*	-	2

Table 1: List of components used in the experiment. Components marked with \* are simulated in Cadence Virtuoso.

**3.2 Task 1a**

**3.3 Task 1b**

**3.4 Task 2**

## 4 Results

### 4.1 Task 1

### 4.2 Task 2

## 5 Discussion

### 5.1 Inaccuracy in measurements

Task 1a:

Task 1b:

### 5.2 Assesment of values

Task 1a:

Task 2:

### 5.3 Comparing task 1 and task 2

## 6 Appendix

### 6.1 Calculations

## References

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