**ECE 212 Lab - Introduction to Microprocessors**

**Department of Electrical and Computer Engineering**

**University of Alberta**



**Lab 2: Addressing Modes**

|  |  |
| --- | --- |
| **Student Name** | **Student ID** |
|  |  |
|  |  |

**Submission Date (Select):**

**05 March, 2018 (For Section H11)**

**06 March, 2018 (For Section H21)**

**07 March, 2018 (For Section H31)**

**08 March, 2018 (For Section H40)**

**08 March, 2018 (For Section H41)**

**Please submit to assignment box (Before 4.00 pm)**

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# Introduction

# Design

## **Part A**

<Write your design about part A. Provide an example how did you get the output when two input values are given.>

## **Part A Flowchart**

<flow diagram of your design for Part A. Make it clear and complete>

## **Part A Assembler Code**

<Write name at the beginning of your code.>

<Write comment in each line.>

## **Part B**

<Write your design about part B. Provide an example how did you get the output when you have a small trapezoid.>

## **Part B Flowchart**

<flow diagram of your design for Part B. Make it clear and complete>

## **Part B Assembler Code**

<Write name at the beginning of your code.>

<Write comment in each line.>

# Testing

<**Don’t say** that you have just downloaded your code and run>

<Say something about Datastorage.s you used. How many points were there and>

<If you change any value in datastorage.s file, please say about it. You may get bonus point if you do.>

## **Part A**

<Screenshot>

<Explain your result>

## **Part B**

<Screenshot>

<Explain your result>

# Questions

1. *What are the advantages of using the different addressing modes covered in this lab?*

***Answer:***

1. *If the difference between the X data points are not restricted to be either one or two units, how would you modify your program to calculate the area? You do not need to do this in your code.*

***Answer:***

1. *From the data points, what is the function (y=f(x))? What is the percent error between the theoretical calculated area and the one obtain in your program?*

***Answer:***

# Conclusion