

## Assembly Lab #2: Basic Graphics

Student name:

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Course: *Digital Design II* – Professor: *Professor X*  
Due date: *March 28th, 2025*

### Lab Objective

Create a line of decreasing brightness on the screen.

### Prelab.

- Read the documentation on Video Memory.
- Become familiar with the following opcodes: MOV, ADD, INC(X), JMP, CMP.

### During Lab

You will write a simple program that will draw a line on the screen with each pixel being slightly dimmer than the last.

- Create variables to hold your screen position and brightness.
- Write a loop to go through positions on the screen.
- Decrement the brightness value.
- Continue for the length of the screen.

### Grading

40% - Program assembles  
40% - Program draws line  
10% - Comments added  
10% - Loop runs in less than 15 cycles

### Helpful Links

[Cosmic Documentation](#)