## CS/EE 120B Custom Project:

Billboard: Advisements, Logos, and Gifs

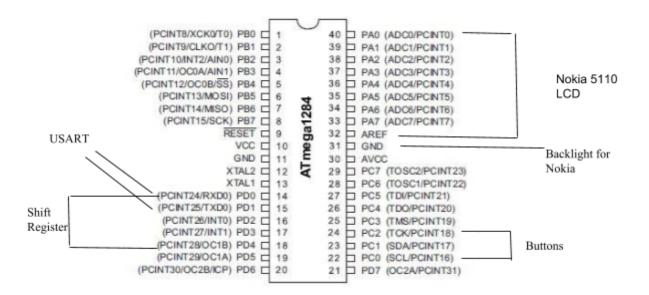
Christian Campos March 17, 2019

## Introduction

Billboards advertisements have been around for decades. One might see a Billboard advertisement in popular attractions. Money is involve in creating an advertisement to be display in the billboard. Sometimes advertisement billboard can be a logo or GIF. A logo can range from superhero movie logo to televisions show's logo. A GIF is multiple images

In my custom project, I design a billboard that displays advertisements, logos, and Gifs. Depending which button is press, the buttons controls the animations of the advertisement, logo, or GIF. Sixteen LEDS connected to two shift register lights a light sequence corresponding to each buttons.





## Components (Pin-out)

- Inputs
  - Buttons to control the advertisement/Logos/Glfs
- Outputs
  - Nokia 5110 LCD screen. This will be used to display the advertisement/Logos/Glfs
  - Two Shift registers to light a 16 LEDS

## Complexities/Build-upons

- Shift register to generate a light sequence for the advertisements, logos, and Gifs.
- Using a second microcontroller (USART) to generate a light sequence for the default state
- 3. Using a Nokia 5110 LCD to display a bitmap images to the screen.