SRS Documentation for Lab 8 (EDX – Embedded)

By Daniel Romero

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# Overview

## Objectives:

Design and build a system that has one switch as the input and an LED as the output. Normally open push button will be used. The LED will be on when the button is not pressed. If the button is pressed the LED will flash.

## Process:

First prototype type the system using a breadboard using a Launchpad by TI, one normally open push button and an LED. Both hardware and software designs will be developed and tested.

## Roles and Responsibilities:

Daniel Romero will develop the hardware, software, and test.

## Interactions with Existing Systems:

Will be using a Launchpad. The Launchpad will be powered via a USB cable either from an AC outlet or computer. The breadboard will be used to design and test the LED output and push button input.

## Terminology:

A normally open switch has a spring, such that if no force is applied the contact will be open. Applying force will close the contact.

## Security:

No security functions.

# Function Description

## Functionality:

If the push button is pressed the LED will flash. While the push button is released, the LED will stay on.

## Scope:

The scope of this design will involve hardware/software prototype design, but will not include legal, marketing, or financial aspects.

## Prototypes:

We will use a breadboard and a Launchpad

## Performance:

Reliability for the LED to flash when the button is push. There is no minimum response time between when the button is push and the LED is flashing.

## Usability:

Pushing the button will toggle the switch every 100 [ms]. Once released, the LED will stay on.

## Safety:

No concerns.

# Deliverables:

## Reports:

## Audits:

## Outcomes: