Lab 5: Arduino IDE and Introduction to Teensy
CSE 2100-001

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March 3, 2017

Date Performed: February 23, 2017
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1 Objective

Install the Arduino IDE and add Teensy support as described in the lab video. Modify the provided Teensy LED blink example to flash the famous distress signal SOS in Morse code repeatedly (3 short flashes, 3 long flashes, 3 short flashes), with a 2 second delay between messages. The LED should be on for 250 milliseconds for short flashes, and 500 milliseconds for long flashes. Use a delay of 250 milliseconds between all flashes. Demo your SOS generator on the Teensy microcontroller when it is functioning properly.

1.1 Definitions

microcontroller : is a small computer that has a processor, a single cheap and small memory. they also contain one or more CPU and are used in embedded system.

Arduino IDE : is a software that runs on Linux, windows and mac that lets us write a code and upload it to our board

Teensy : is a USB controlled microcontroller system that contains a lot of features. we can also program using the USB port.

udev rules : are rules files in linux operating system used to identify devices based on their properties.

tar : (tape archive) is a command in Linux that is used to create archive files .

2 Question 1

What flags must be provided with the tar command to extract a tar.xz file?

The flag that must be used with the tar command to extract a tar.z file is xf. it lets us extract using the x compression scheme.

3 Question 2

List 3 advantages of using the Arduino platform when programming microcontrollers
some advantages of using the platform include:
1) It provides a clear and simple programming environment.
2) It is cheaper compared to other platforms that provide the same features.
3) It can be run on more than one operating system (it is a cross platform).