ECEN 2020 Homework 2: Blink, User Interaction, and the Build Process

Due: 09/15/2013 11:55pm
Submit zip/rar file to Moodle
20 Points Total

1. (1 point) Get the provided 'Blink' program working. **Use their libraries.** *This just makes sure you installed everything correctly – just yes or no.*

   Yes

2. (4 points) **Using their libraries**, create a simple program to ask for your first name, then your last name (the first and last names should be stored in two separate variables) and then repeat it back in the form: "Your name is: [lastname, firstname]". *In your submission, include a text file called myname.txt which contains the code from your Arduino program. Comment your code well.*

   See myname.txt

3. (5 points) Modify their 'Blink' example. Using their code, edit it to be able to change the blink period based on user input. The user should be prompted for a number of milliseconds, and this should be the value used in the 'delay()' functions. You may want to create a new function for grabbing user input, as it will be handy in the future. *In your submission, include a text file called superblink.txt which contains the code from your Arduino program. Comment your code well.*

   See superblink.txt

4. (4 points) I have a sketch with the following code:

```
void setup() {
  Serial.begin(9600);
}

void loop() {
  Serial.println("AM I BEING ANNOYING?");
  delay(1000);
}
```

   What does the 'main sketch' file look like after the transform step in the build process?

   See sketchtransform.txt

5. (3 points) Why do we start with Serial.begin(9600)? What does this function do and what is meant by 9600?

   This "sets the data rate in bits per second (baud) for serial data transmission." The Serial.begin function sets up a communication port between the Arduino and the computer so that they can talk to each other using an agreed upon rate and using an agreed upon protocol. The 9600 is the baud rate, in our case bits/sec, and is the speed at which both sides expect to communicate with the other.

6. (3 points) Get secondary terminal program working, besides the built in 'Serial Monitor'. This could be PuTTY, RealTerm, Terminal in Mac OS or Linux, or anything else. Include a screen shot in your submission.

   Check the screenshot for something believable.

Turning in your assignment:

1. Answer all questions (this can be a .doc, .docx, .pdf, .txt, …).
2. Code should be in .txt files
3. Zip your answers and your code into a .zip (or .rar) file called *lastname*_HW2.zip
4. Submit the zip file to the Moodle website
5. Email the instructor/TA if you have any questions.