

## Lab 9 Reading from the Serial Monitor

There are 3 experiments in this lab. Reading an integer number, reading a floating point number, and reading text.

In all of these experiments you must

1. Initialize the serial monitor
2. Print a prompt to the serial monitor describing what the user should input
3. Wait until the user enters the data
4. Provide the result to the user on the serial monitor or perform an action.

Part A. Integers: Controlling the number of blinks pause 1 second.

Your Sketch should do the following:

1. Set up the Arduino with an LED and 220 ohm resistor.
2. Ask the user to provide an integer associated with the number of blinks.
3. Turn the LED on, pause  $\frac{1}{2}$  second, then turn LED off, and pause 1 second.
4. Repeat step 3 five times.
5. Then continually repeat steps 2-4.

Part B. Floats: Controlling your age on Earth to your age on Mercury, Venus and Mars (google “How old am I on different planets”).

Your Sketch should do the following:

1. Ask the user to provide their age (Years and Months) on Earth in floating point form.

For example, if you are 20 years 10 months, the user is  $20 + 10/12$  and there 20.83 should be entered.

2. Then the sketch should write to the Serial Monitor

Your age on Earth is 20.83, then

Your age is 86.4 Mercurian years.

Your age is 33.8 Venusian years.

Your age on Mars is 11.07 Martian years.

3. Then continually repeat steps 1-2.

## Part C. Text: Determining the names of The Beatles.

Your Sketch should do the following:

1. Ask the user to provide the names of one of the Beatles.
  2. If the name is correct, print the message this is one of the Beatles
  3. If the name is incorrect print, print the message that the name was wrong and repeat step 1.
  4. Repeat step 1 and so on.
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