**CamJam EduKit – Sensors (Written for IDLE 3)**

**Start:**

1. Setup and assemble the Raspberry Pi (RPi) environment:
   1. Connect RPi to a monitor, keyboard and mouse
   2. Power up the RPi module
   3. Observe the start-up script
2. Login and enter password
3. Open the LXTerminal and enter sudo idle3
4. Click on **File** and **Open** **New Window**
5. Click on **File** and **Save As** andname it2-LEDBuzz.py

**Coding:**

1. Import libraries

Import RPI.GPIO as GPIO #import GPIO library

Import time #import time library

1. Type in the following code

GPIO.setmode(GPIO.BCM) # Each pin on the Pi has several

#different names, so you need to

#tell the program which naming

#convention is to be used

GPIO.setwarnings(False) #This tells Python not to print

#GPIO warning messages to the screen

GPIO.setup(18, GPIO.OUT) # These three lines are telling the

GPIO.setup(24, GPIO.OUT) #Python interpreter that pins 18, 24 and

GPIO.setup(22, GPIO.OUT) #22 are going to be used for outputting

#information, which means you are going

#to be able to turn the pins ‘on’ and

#‘off’

print(“Lights and sound on”) #Print a statement on the screen

GPIO.output(18, GPIO.HIGH) # These three lines turn the GPIO

GPIO.output(24, GPIO.HIGH) #pins ‘on’. This is enough to turn

GPIO.output(22, GPIO.HIGH) #on the LEDs and make the buzzer

#sound

time.sleep(1) #Pauses the running of the code for one

#second

print(“Lights and sound off”) #Prints a statement on the screen

GPIO.output(18, GPIO.LOW) # To turn the LEDs off, you need to

GPIO.output(24, GPIO.LOW) #replace the GPIO.HIGH with GPIO.LOW.

GPIO.output(22, GPIO.LOW) #This will turn the pins off so that

#they no longer supply any voltage.

GPIO.cleanup() #will reset the status of any GPIO pins

#when you exit the program

Save and run the code