American International University – Bangladesh

Faculty of Engineering

Department of EEE & CoE

PROJECT PROPOSAL FORM

Course Name: ELECTRONIC DEVICES LAB	**GROUP#: 5**
PPROJECT TITLE: Arduino Sound Reactive LED	

PROJECT OUTLINE: :

(1). **Methodology:**

In this project there is an Arduino port which has built in components like transistors, diode, inductor, pushbutton, capacitor and so on. When any sort of sound with a frequency level is detected by the port which is connected with the program code uploaded. As it senses the sound and the LED lights turns on according to the frequency high level as voltage up, LED ON and low level or voltage down , LED OFF. The code will be done by a simple if else statement in program. The LED lights will be neither OFF nor BLINKING at all while no sound is detected. As, the sound with a frequency is detected, the system LED turns ON or starts BLINKING again.

(2). **Components Required**

WIRE	RESISTOR	TRANSISTOR
BREADBOARD	CAPACITOR	(both pnp and npn)
POWER SUPPLY	LED	PHOTORESISTOR
INDUCTOR	PUSHBUTTON	
DIODE	RELAY	

(3). **Circuit Diagram**

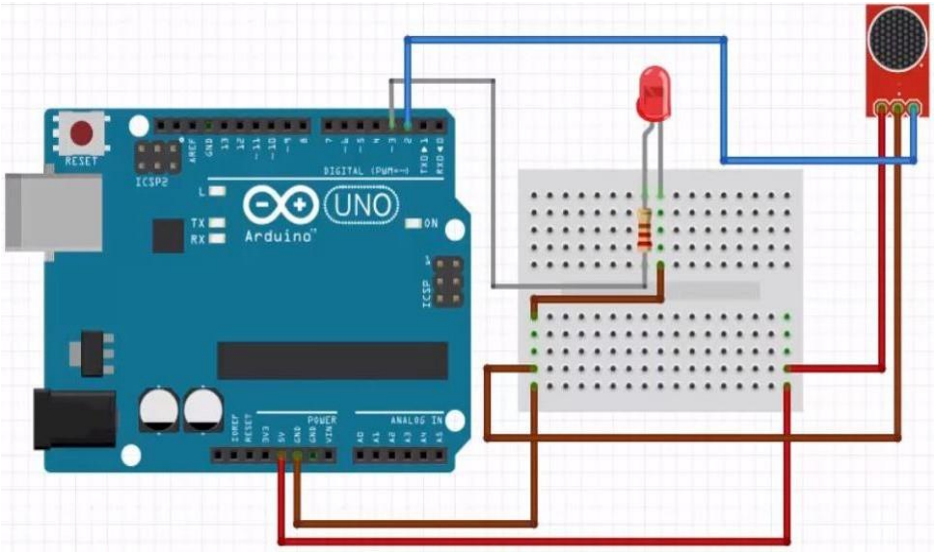

FIG: SIMPLIFIED CIRCUIT PLAN.

(4). **Application**

All the probable applications of the system is stated:

=> The system can detect the presence of sound level in decibel unit and if it detects the level of sound in the code then the system notifies it by LED light turning on. Works as sound level detector.

=>Libraries can use the system for checking the noise level in the library.