



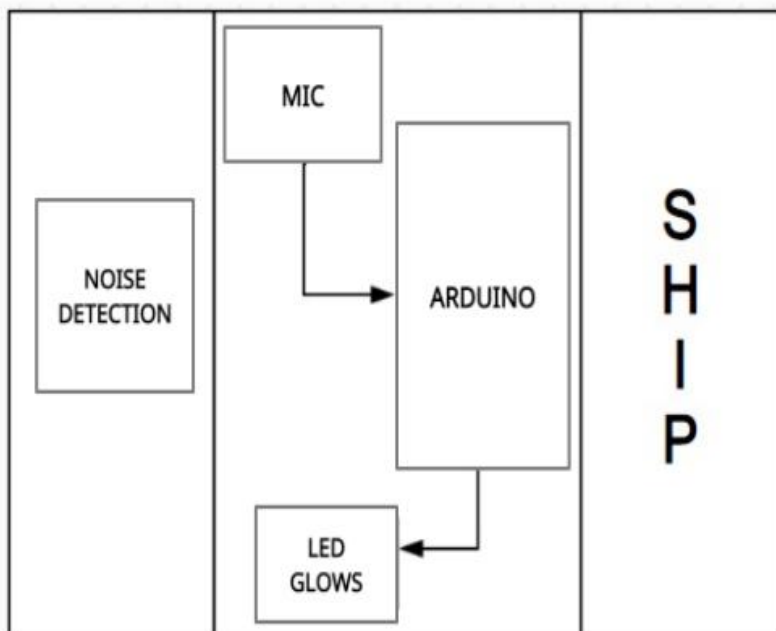
DEPARTMENT OF INFORMATION SCIENCE AND TECHNOLOGY

COLLEGE OF ENGINEERING GUINDY

MAMMAL SAVER USING IOT

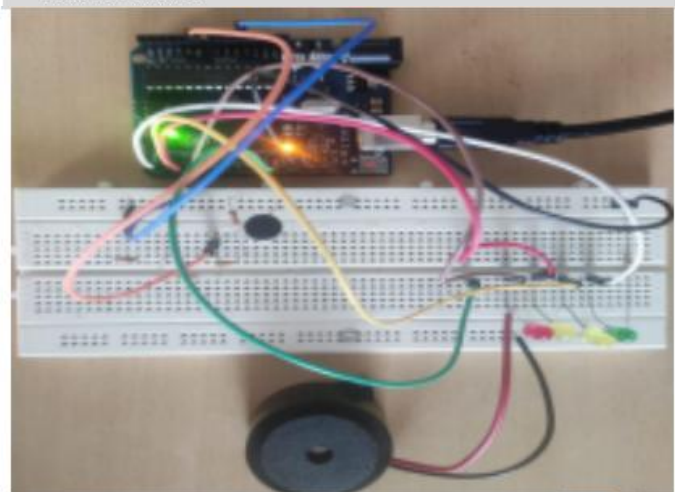
ABSTRACT

Our aim is to decrease the mammals death /injuries due to ship sound in oceans. Sound of ship kills marine mammals including dolphins, porpoises and whales. More than 120 dB can cause discomfort to these species, more than 170dB can cause serious internal injuries, bleeding and even hemorrhages, and noise beyond 200dB can cause instant death. A normal Electret Condenser microphone with Arduino and try measuring the sound or noise pollution level in dB as close as possible to the actual value. If the sound level is above the critical level (200 dB) then the indicator light will be glown and the buzzer will also alert the captian.



CONCLUSION

Our project detects the ship sound when the sound level is above the critical Level (200 dB) then the indicator light will be glown and the buzzer will also alert the captain of the ship so that he could reduce the speed of the ship which reduce the sound energy. This could reduce the death of marine mammals. Our plan will be more useful for saving the marine mammals.



```
sound_detector | Arduino 1.5.15
File Edit Sketch Tools Help

sound_detector
#include <Arduino.h>

int sig = 0;

void setup() {
  pinMode(2, OUTPUT);
  pinMode(3, OUTPUT);
  pinMode(4, OUTPUT);
  pinMode(5, OUTPUT);
}

void led() {
  sig = analogRead(A0);

  if (sig < 1) {digitalWrite(2, HIGH);} else {digitalWrite(2, LOW);}
  // For 300 volt = 49.5dB
  if (sig < 300) {digitalWrite(3, HIGH);} else {digitalWrite(3, LOW);}
  // For 170dB = 31422766 volts
  if (sig < 31422766) {digitalWrite(4, HIGH);} else {digitalWrite(4, LOW);}
  // For the protection of mammals, 200dB should be given to the condition
  // 200dB = 10000000000 volt, when it reaches 200dB buzzer will alert the captain
  if (sig < 10000000000) {digitalWrite(5, HIGH);} else {digitalWrite(5, LOW);}
}

void loop() {
  led();
}
```

Done compiling

Sketch uses 982 bytes (3%) of program storage space. Maximum is 32256 bytes.
Global variables use 11 bytes (0%) of dynamic memory, leaving 2027 bytes for local v