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Introduction To Sensors – Lesson 6: Sound Sensor

FORMULAS

The following formulas and information are meant to go with the online lesson found here:

<http://www.pyroelectro.com/edu/sensors/sound/>

LESSON 6 ARDUINO PROGRAM

In this program for lesson 5 we used a sensor input and an LED output. The sensor input triggered an interrupt that we called blink. the blink interrupt routine simply set an integer called blink_leds and the main loop blinked the led a few times. If no sound interrupts the main loop, then the LED stays dark.¹

```
lesson6_sound | Arduino 1.6.3
File Edit Sketch Tools Help
lesson6_sound
int ledPin = 3;           // choose the pin for the LED
int inputPin = 0;        // choose the input pin (for PIR s
int val = 0;             // variable for reading the pin st

volatile int blink_leds = 0;

void setup() {
  pinMode(ledPin, OUTPUT); // declare LED as output
  attachInterrupt(inputPin, blink, FALLING);
}

void loop(){
  int i=0;

  if(blink_leds == 1){
    for(i=0;i<5;i++){
      digitalWrite(ledPin, HIGH);
      delay(50);
      digitalWrite(ledPin, LOW);
      delay(50);
    }
    blink_leds = 0;
  }

  delay(100);
}

void blink(){
  blink_leds = 1;
}
```

ADDITIONAL INFORMATION

If you have any questions about the formulas or information found in this document, please feel free to head on over to the forums and ask us some questions!

<http://www.pyroelectro.com/forums/viewforum.php?f=27>