Here’s a basic Arduino code to monitor noise levels and save the data to an SD card:

#include <SPI.h>

#include <SD.h>

Const int chipSelect = 4; // Pin for the SD card module

Const int soundSensorPin = A0; // Analog pin for the sound sensor

File dataFile;

Void setup() {

Serial.begin(9600);

If (!SD.begin(chipSelect)) {

Serial.println(“Card initialization failed!”);

Return;

}

dataFile = SD.open(“noise\_data.txt”, FILE\_WRITE);

if (dataFile) {

dataFile.println(“Noise Level (dB)”);

dataFile.close();

} else {

Serial.println(“Error opening data file.”);

}

}

Void loop() {

Int soundLevel = analogRead(soundSensorPin);

Float voltage = (soundLevel / 1023.0) \* 5.0;

Float decibels = map(voltage, 0, 5, 30, 100);

Serial.print(“Noise Level (dB): “);

Serial.println(decibels);

dataFile = SD.open(“noise\_data.txt”, FILE\_WRITE);

if (dataFile) {

dataFile.println(decibels);

dataFile.close();

} else {

Serial.println(“Error opening data file.”);

}

Delay(1000); // Adjust the interval between readings as needed

}