http://www.nimbits.com/arduino/

Using sensors, such as those on the Arduino Platform, you can record data out to the cloud by using xmpp, http or smtp protocols. For low powered devices, you can use more basic protocols like mqtt and use a middle tier server of your own to relay data out to Nimbits.

We provide a basic Arduino Library, which you can use out of the box, or use it as a sample to write your own. This library uses HTTP Posts and Gets to push and pull data from the Nimbits REST API. When you import Nimbit.h into your Arduino project,

Download the latest version of **Nimbits.h** and **Nimbits.cpp** from the Git Repository and copy them into your Arduino Project Folder (same folder as your .ino file)

Read More about using the Nimbits Library for Arduino in the user manual. This simple example records a random number to a data point.

How to use this example

- Use an Arduino Board with an Ethernet Shield
- Replace the MAC Address below with the one on the sticker on your ethernet shield
- Sign into Nimbits Web Console and create a data point and a read write access key - see the user manual on how to do this
- If you're running your own instance, replace the instance below with your app id

Record a random number to a data point every 5 seconds:

```
#include "Nimbits.h"


#include <Client.h>

#include <Ethernet.h>

#include <SPI.h>

#include <PString.h>

#include <stdlib.h>


//nimbits settings, set the instance name (nimbits-02 is the public cloud on
```

```
https://cloud.nimbits.com) the email of the account owner, and a read write key they have
created.

              String instance = "nimbits-02";

              char owner[] = "example@gmail.com";

              String readWriteKey = "your key";

              byte mac[] = {0x90, 0xA2, 0xDA, 0x00, 0x54, 0x39}; //this ethernet shield's MAC
address



              Nimbits nimbits(instance, owner, readWriteKey);



              void setup() {

              Serial.begin(9600); //initialize serial communication for debugging

              if (Ethernet.begin(mac) == 0) {

              Serial.println("DHCP Failed!");

              while(true);

              }

              randomSeed(analogRead(0));

              Serial.println("Online");

              delay(1000);

              }



              void loop() {

              delay(5000);

              //note the entity id of a data point is always: your_email/point_name
```

```
            nimbits.recordValue(random(300),"","example@gmail.com/lab_temp");

            }
```