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🔖 iobridge / ThingSpeak-Arduino-Examples   👁 Watch 37   ★ Star 99   ⑂ Fork 77

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Branch: master ▾   ThingSpeak-Arduino-Examples / Yun / TalkBack_to_Arduino.ino   Find file   Copy path

nothans Updated credit link   2ff6868 on Apr 21, 2015

2 contributors

103 lines (78 sloc)   2.46 KB   Raw   Blame   History   🖥 ✏ 🗑

```
  1    /*
  2
  3    TalkBack --> Arduino Yun via Wi-Fi
  4
  5    The TalkBack App sketch is designed for the Arduino Yun connected to a
  6    Wi-Fi network and the Arduino 1.5.4 IDE or newer. This sketch allows the
  7    Arduino to request commands stored by a ThingSpeak TalkBack via the
  8    TalkBack API (https://thingspeak.com/docs/talkback).
  9
 10    Getting Started with ThingSpeak:
 11
 12      * Sign Up for New User Account - https://www.thingspeak.com/users/new
 13      * Create a new Channel by selecting Channels and then Create New Channel
 14      * Create a TalkBack by selecting Apps, TalkBack, and New TalkBack
 15      * Enter the TalkBack API Key in this sketch under "ThingSpeak Settings"
 16      * Enter the TalkBack ID in this sketch under "ThingSpeak Settings"
 17
 18    Arduino Requirements:
 19
 20      * Arduino Yun
 21      * Arduino 1.5.4 IDE or newer
 22
 23     Network Requirements:
 24
 25      * Router with Wi-Fi
 26      * DHCP enabled on Router
 27
 28    Created: Jan 30, 2014 by Hans Scharler (http://www.nothans.com)
 29
 30    Additional Credits:
 31    Example sketches from Arduino team, ThingSpeak and Yun Example by Tenet Technetronics
 32
 33    */
 34
 35    #include "Bridge.h"
 36    #include "HttpClient.h"
 37
 38    //ThingSpeak Settings
 39    String thingSpeakAPI = "api.thingspeak.com";
 40    String talkBackAPIKey = "XXXXXXXXXXXXXXXX";
 41    String talkBackID = "YYYY";
 42    const int checkTalkBackInterval = 15 * 1000;    // Time interval in milliseconds to check TalkBack (number of seconds * 1000 = interval)
 43
 44    // Variable Setup
 45    long lastConnectionTime = 0;
 46
 47    void setup()
 48    {
 49      // Setup On-board LED
 50      pinMode(13, OUTPUT);
 51      digitalWrite(13, LOW);
 52      delay(1000);
 53      digitalWrite(13, HIGH);
 54      delay(1000);
 55      digitalWrite(13, LOW);
 56
```

```
57      // Initialize Bridge
58      Bridge.begin();
59
60      // Initialize Serial
61      Serial.begin(9600);
62      while(!Serial);
63    }
64
65    void loop()
66    {
67      // Check ThingSpeak for TalkBack Commands
68      checkTalkBack();
69      delay(checkTalkBackInterval);
70    }
71
72    void checkTalkBack()
73    {
74      HttpClient client;
75
76      String talkBackCommand;
77      char charIn;
78      String talkBackURL =  "http://" + thingSpeakAPI + "/talkbacks/" + talkBackID + "/commands/execute?api_key=" + talkBackAPIKey;
79
80      // Make a HTTP GET request to the TalkBack API:
81      client.get(talkBackURL);
82
83      while (client.available()) {
84        charIn = client.read();
85        talkBackCommand += charIn;
86      }
87
88      // Turn On/Off the On-board LED
89      if (talkBackCommand == "TURN_ON")
90      {
91        Serial.println(talkBackCommand);
92        digitalWrite(13, HIGH);
93      }
94      else if (talkBackCommand == "TURN_OFF")
95      {
96        Serial.println(talkBackCommand);
97        digitalWrite(13, LOW);
98      }
99
100     Serial.flush();
101     delay(1000);
102   }
```