Adm: white a Program to Interface IR dendors. using Arduino luking 10% cloud complitation.

June 1 () () Hungel

The different cloud opplications which integrates 107

- 1. Thingspeak took word maker, sixed a bir of stillen
- 2. Kirlely.

1. Thing Speak: It is 10T conalytic sentite that allow apou to aggregate, Visualize, oralyse live data stream from cloud. (in the cloud)

- MATLAB tode supports thingspeak to Renform online analysis and Process the data.

-> MATLAB also supports simulation.

, open throme open thingspeak Munidity 70.00 y treate a new user satrount A run account contains a new chonnel

The channel has 8 different fields.

-> El skous the data and Enkegrates the data with different sensors.

- s there are 2 views
 - is printate lieus
 - (in) Public View (In channels)
- Jour Perintate data is Protected with API key that you can conterol.

Merb Hev Phy Olageam: chand 10: 2467173 Author: mwa 0000033348795 OUGA Acres: Printate Printate View Public View channel Settings strawing API Keys. 1 214 7 channel state. Relk Field I short Ora 3 stronnukha. 133 मुद्द । भार Date

Hardwan Requirements:

Node MCU is a misso-controller unit used to dustope 10T Applitations, It connects derlites to Entern It has built in wife and Programming topositities. Facilitating speedy. Prototyping and deployment of 10T

(terdiano + WIFI = Node MCU).

Mode MCV PIN Diagram:

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	<u>(6)</u>)	tho a	3.37	

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, no to sketch, dick on include library and
search in manage libraries ESP8266 and thingspeak
pourle code:
                                              (170) bian
 # include < OHT.h>
# include < ESP8266 WiFi. h} philosoullhour the in tost
 String spikley = " 9 K wwith BQ & TFX6 C 4x1;
tonat char * Ssid = "Ttachi";
const chart Pass = 12345678"
sonst shar sever = "api. thing speak . tom";
# define DHTPIN D3
                          if ( eliet. earned (down . Sc) )
 DHT dht (DHTPIN, DHTII);
                            String Roststs - equiling i
 wiFichient elient;
                                Rootek to "2 pold 1="+
void setup()
                                (th) private + stering (h);
 Serial. begin (115200);
                                ["= 5.6 light" = + (dates) ]
                                  ((1) prints + detag(1);
 delay (1000);
                                 alcharge +3 " 12 holon
 aht begin ();
 Serial. Println ("connecting to") in pul son")
Serial Printly ("Elist); et . Logeprid in that ") bies built
WiFi. begin (shid, Pass); " stole (nathernal") the built
while (wiFi. status () != WE: CONNECTED) x") built brits
                           olied (Rostster, hagel (1)
delay (2000) ',
                                     ( l'ales") til-intils
Serial Print (".")
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Serial Println ("");
   Levial. Println ("WiFi connected");
                                              Arr. Din
 Word Loop ()
                                             Will of Just of a
   float h = drt. read Humidity ();
 efloat to alt. read Temperature ();
 if (isnan (h) 11 isnan (+1)
   Serial Println ("Failed to read from DHT Senson )")
                 cost where bouter = "api. thingspeak win
  return;
                                        EUNIALHU PUTELTI
  if (client. connect (server, 80)).
 Estring Poststr = opikey;
                                         WiFi Original Society !
   Prostate += "ffield 1=";
                                             Ogutido Sia
   Rostate += string (h);
  Postets += "4 field 2=";
                                     Serial. Escaja (1152 DO)
  Postste += String(+);
                                              ((0001) pales.
 Postute += "IrInIrIn";
                                             (O april 616.
 client-Perint ("Post laupdate HTTP/1.1/n");
                                             March birds
alient Peint (" Host: opidhingspeak com In");
client Print (" connection: close (n");
client. Paint ("x- Thingspeak APIKEY: "+apikey+"sn");
alient. Perint (Postster. lingth (1);
                                            (sour) polis
elient. Parint ("min");
```

dient. Print (Rostate); social Print ("Temperature:"); social. Print (1). Serial Print ("degrees teleius, Humidity: "); social Perint (h); Swind. Println (" 1. Send to Thingspeak"); client. stop(); derial Println ("waiting ..."); in Tringer levines delay (1000); broad barred Holder Him d output: while Cooks Thingspeak channel status. STIHON MADDY & * .include C CK18266 WiFi. h> Field 2 chart 1 1.xxch 9864 min - morph brings IR Sendor. Sili presborish" - bible " no be tano " . r . r . r . sens " 2 ptz () 6 east should orier "" apir shory speeds com 09:41:00 09:42 09:431 MATTHE LAB 7.10 09:44 09:45 itale the f lighter bisy avte. (16200); head (16200); edeloy (1000);