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用 Arduino 读取 VGA 的 EDID

Sketch

```
// SDA (20)  HDB15-12
/*
*@Date: 2014-02-21
*/
// SCL (21)  HDB15-15
// +5V      HDB15-9
// GND      HDB15-5

#include <Wire.h>

const int i2c_port = 0x50;
byte buffer[BUFFER_LENGTH]; // 128 byte EEPROM data buffer

void setup()
{
  Serial.begin(9600);
  Wire.begin();
  while (!Serial)
    {};
}

void loop()
{
  Serial.println("(1) Read EDID and print.");
  Serial.println("(2) getInput()");
  Serial.println("(3) Item 3");
  Serial.println("");

  while (!Serial.available()) {};

  switch (Serial.parseInt())
  {
    case 1: ddcRead(); break;
    case 2: getInput(); break;
    case 3: Serial.println("Item 3."); break;
    default: printError("Menu item does not exist.");
  }

  Serial.println("*****");
}

void printError(String message)
{

```

```
    Serial.println("Error: " + message);
}

void ddcRead()
{
    int blocks = 128 / BUFFER_LENGTH;

    Serial.println("Reading DDC...");

    Wire.beginTransmission(i2c_port);
    Wire.write(0);
    Wire.endTransmission();

    for (int block = 0; block < blocks; block += BUFFER_LENGTH)
    {
        Wire.requestFrom(i2c_port, BUFFER_LENGTH);
        for (int i = 0; i < BUFFER_LENGTH; i++)
        {
            //Serial.println(block + i, HEX);
            byte x = Wire.read();
            buffer[block + i] = x;
            //Serial.print(x, HEX); Serial.print(" ");
        }
    }
    Serial.println("Finished reading DDC.");
    printData();
}

void printData()
{
    int rows = 128 / 16;
    for (int row = 0; row < rows; row++)
    {
        Serial.print(" (");
        if (row == 0)
            Serial.print(0, HEX);
        Serial.print(row * 16, HEX);
        Serial.print(") ");

        for (int half_col = 0; half_col < 2; half_col++)
        {
            for (int col = 0; col < 8; col++) {
                int index = (row * 16) + (half_col * 8) + col;
                byte b = buffer[index];
                if (b < 16) {
                    Serial.print(0, HEX);
                }
                Serial.print(b, HEX);
                Serial.print(" ");
            }
            // Serial.print("["); Serial.print(index, HEX); Serial.print("]");
        }

        if (half_col == 0) {
            Serial.print("- ");
        }
    }
}
```

```

    }
    else {
        Serial.println();
    }
}
}

void getInput() {
    int input_buffer_len = 16;
    char input[input_buffer_len];
    Serial.println("Enter a string. 32 chars max. Input not echoed.");
    while (!Serial.available()) { ; }
    int input_len = Serial.readBytes(&input[0], input_buffer_len);
    Serial.print("Input is: ");
    for (int i = 0; i < input_len; i++) {
        Serial.write(input[i]);
    }
    Serial.println(".");
    Serial.println("");
}
}

```

测试

```

/dev/cu.usbmodem1421
(1) Read EDID and print.
(2) getInput()
(3) Item 3

Reading DDC...
Finished reading DDC.
(00) 00 FF FF FF FF FF FF 00 - 38 72 00 71 01 01 01 01
(10) 1A 15 01 03 68 1E 17 78 - EA BB 35 A5 57 4F 93 26
(20) 00 FF FF FF FF FF FF 00 - 38 72 00 71 01 01 01 01
(30) 1A 15 01 03 68 1E 17 78 - EA BB 35 A5 57 4F 93 26
(40) 20 20 50 00 00 00 00 00 - 00 00 00 00 00 00 00 00
(50) 00 00 00 00 00 00 00 00 - 00 00 00 00 00 00 00 00
(60) 00 00 00 00 00 00 E1 02 - 00 00 E8 03 00 00 00 00
(70) 00 00 00 A1 01 00 00 00 - 00 00 00 FF FF FF FF FF
*****
(1) Read EDID and print.
(2) getInput()
(3) Item 3

```

(<http://www.tonylabs.com/wp-content/uploads/arduino-serial-monitor-reading-edid.png>)

Arduino 串口监视器 读取到的 EDID 数据

EDID (<http://www.tonylabs.com/?tag=edid>)

CC3000 物联网第一大媒婆 (<http://www.tonylabs.com/cc3000-introduction.html>)

Arduino 实现 DVI 和 VGA 的 EDID 写入 (<http://www.tonylabs.com/arduino-write-edid-to-dvi-and->

vga.html)
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