

logic for displaying temperature and humidity on OLED.

```
#include <Wire.h>
#include <Adafruit-GFX.h>
#include <Adafruit-SSD1306.h>
#include <dht.h>
```

```
#define dht_apin A0 // Analog pin Sensor is Connected to.
#define SCREEN_WIDTH 128
#define SCREEN_HEIGHT 32
```

```
Adafruit-SSD1306 display(SCREEN_WIDTH, SCREEN_HEIGHT, &Wire,
dht DHT; -1);
```

```
void setup ( )
```

```
{
  Serial.begin(115200);
```

```
  if (!display.begin(SSD1306_SWITCHCAPVCC, 0x3c))
```

```
  {
    Serial.println("SSD1306 allocation failed");
```

```
    for(;;);
```

```
  } // setup.
```

```
void loop() {
```

```
  DHT.read11(dht_apin);
```

```
  Serial.print("Temperature: ");
```

```
  Serial.println(DHT.temperature);
```

```
  display.clearDisplay();
```

```
  display.setTextSize(1);
```

```
  display.setTextColour(WHITE);
```

```
  display.setCursor(0,5);
```

```
  display.println(temperature);
```

```
  display.display();
```

```
  display.setCursor(1,5);
```

```
  display.print("Humidity");
```

```
  display.println(DHT.humidity);
```

```
  display.display();
```

```
}
```

Raspberry PI models.

We can say Raspberry PI is Small sized / credit card sized Computer, which uses standard Keyboard & mouse.

Different types of Raspberry PI models.

The different types of Raspberry PI models are as follows.

- ① Raspberry PI 1 model B.
- ② Raspberry PI 1 model B+
- ③ Raspberry PI 1 model A
- ④ Raspberry PI 1 model A+ } → model 1.
- ⑤ Raspberry PI Zero
- ⑥ Raspberry PI 2
- ⑦ Raspberry PI 3 model B
- ⑧ Raspberry PI Zero W.
- ⑨ Raspberry PI 4 model B.
- etc. . .

By looking at above different Categories we can further categorise in ① model-A ② model-B ③ Zero ④ Compute

Raspberry PI Zero (minimalist)

- Single core @ 1GHz
- 512 MB SDRAM.
- Micro SDHC stor.
- No networking interface

Raspberry PI-1 (Beginning) (2012)

processor & GPU

single-core ARM11 76JZF-S @ 100MHz
Broadcom VideoCore IV @ 250MHz

Flash memory & storage

512 MB → SDRAM

Networking : 10/100-Mbits/s.

→ 2 USB 2.0 ports.

→ 4 pole stereo Audio / composite Audio port

Raspberry PI-2 (The Rise) (2015)

→ Quad core cortex-A53 @ 900 MHz

→ 1GB SDRAM

→ Micro SDHC Slot.

→ 10-100 Mbps ethernet

Other are almost same as model-1

Raspberry PI-3 (2018)

→ Quad core. @ 1.2 GHz.

→ Broadcom VideoCore @ 250 MHz

→ 1GB SDRAM.

→ USB bootable

→ 2.4 GHz & 5 GHz IEEE 802.11 wireless LAN

→ Gigabit ethernet over USB.

→ 4 USB 2.0 ports.

Feature	PI 1B	PI 1B+	PI 2B	PI 3B
Architecture	ARMV6Z 32 bit	ARMV6Z 32 bit	ARM7-A 32 bit	ARM V8-A 64/32 bit
CPU	700MHz ARM 1176JZF-S	700MHz ARM 1176JZF-S	900MHz ARM cortex-A7	1.2GHz ARM cortex-A53
Cores	1	1	4	4
RAM	512MB	512MB	1GB	1GB
OS	linux based	linux Based	linux Based	linux based
USB 2.0 ports	2	4	4	4