3) using DHT11 sensor read temperature and humidity (Digital Humidity Temperature).

-> required to ~~dow~~ Install the DHT Library in Arduino IDE

-> go to sketch -> Include Library

-> In library Manager search for DHT library

DHT sensor library.

-> Files -> Example -> (Scroll Down) DHT sensor library

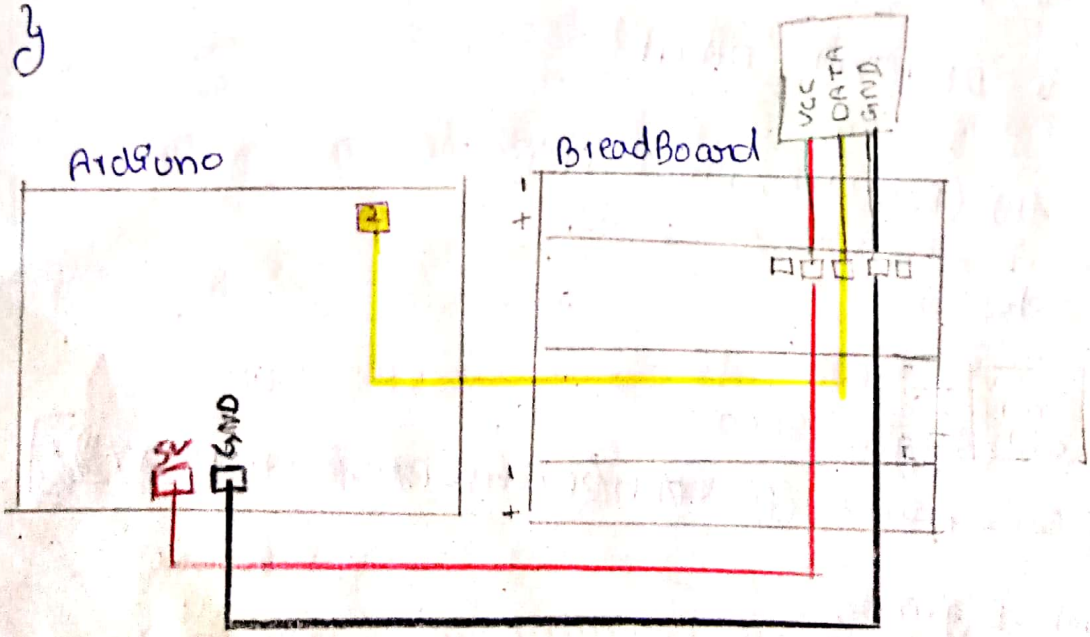
DHTtester.

Code

```
#include "DHT.h"

#define DHTPIN 2

#define DHTTYPE DHT11

DHT dht(DHTPIN, DHTTYPE);

void setup()
{
  Serial.begin(9600);
  Serial.println("TEMPERATURE & HUMIDITY");
  dht.begin();
}
```

~~void~~

```
void loop()
{
    delay(2000);
    float h = dht.readHumidity();
    float t = dht.readTemperature();

    if (isnan(h) || isnan(t))
    {
        Serial.println(F("Failed to read from DHT sensor!"));
        return;
    }

    Serial.print(F("Humidity :"));
    Serial.print(h);
    Serial.print(F("% Temperature :"));
    Serial.print(t);
    Serial.println(F("°C"));
}
```



DHT11 Pinout configuration

① Vcc = Power supply 3.5V to 5.5V.

② Data = outputs both Temperature and Humidity through Serial Data.

③ Ground = connected to the ground of the circuit.

## applications of DHT11 sensor

* This sensor is used in various applications such as measuring humidity & temperature values in heating, ventilation & air conditioning systems.
* Weather stations also use these sensors to predict weather conditions.
* The humidity sensor is used as a preventive measure in homes where people are affected by humidity.