

DHT11_Module

Module Responsibility

Module Responsibility :

- generating the start signal, receiving and decoding the 40-bit data frame from the DHT11 sensor
- validating the received data using checksum
- extracting **temperature** and **humidity** values

Output :

- Provide the **temperature** and **humidity** data

Module Design

<<block>>

MPU_Sensor

<<Parameters>>

```
typedef struct {  
    uint8_t temperature;  
    uint8_t humidity;  
} Dht11_DataType;
```

<<Function>>

```
~ Dht11_Init(void) : void  
~out: Dht11_Main(Dht11_DataType *data) : int
```

Module Flowchart

