

```
1  /*
2  * This is the .h file for the Si7051 sensor
3  * This sensor is used in the globe thermometer
4  */
5
6  #ifndef _CLOSEDCUBE_SI7051_h
7
8  #define _CLOSEDCUBE_SI7051_h
9  #define MAX_READ_COUNT 5
10 #define MAX_ERROR_COUNT 40
11 #define ADDR_MRT 0x40
12 #define DEFAULT_AVERAGE 128
13 #include <Arduino.h>
14
15 class ClosedCube_Si7051 {
16 public:
17     ClosedCube_Si7051();
18
19     float readT(); // short-cut for readTemperature
20     bool run_mrt(void);
21     bool start_mrt(void);
22     float get_MRT_ave(void);
23
24 private:
25     uint8_t _address;
26     void begin(uint8_t address);
27     float readTemperature();
28     float T_buf[MAX_READ_COUNT];
29     float T_ave;
30     int read_count;
31     int error_count;
32 };
33
34 #endif
35
```