Temperature and Humidity Detector mBot

After the mbot robot starts operation, the car gives off a blue light, and the panel displays humidity. Press the black button, the car gives off a red light, and the panel displays temperature instead.

Point of knowledge learned:
Principle and Application of Me Temperature and Humidity Sensor.

Learn more:
Me Temperature and Humidity Sensor: https://www.makeblock.com/project/me-temperature-and-humidity-sensor
Me 7-Segment Display: https://www.makeblock.com/project/me-7-segment-display
Parts list

1. Me Temperature and Humidity Sensor × 1
2. Me 7-Segment Display × 1
3. Plate I1 × 2
4. Brass Stud (M4*12+6) × 10
5. Wrench 5mm&7mm × 1
6. RJ25 Cable - 20cm × 4
7. M4*8 Screw × 50
8. Nut M4 × 50

Note: Please take the screwdriver from mBot educational kit.
Construction Steps

Step 1
Remove two M4X8 screws behind the mBot main board.

Step 2
Screw the brass studs on the two threaded holes behind the main board, and then screw four brass studs on the brass studs.

Note: Adult supervision is required when the screwdriver is used.
**Construction Steps**

**Step 3**
Place the plate I1 on the brass stud, and fasten it with a M4*8 screw.

**Step 4**
Install the Me temperature and humidity sensor on the plate I1.
Construction Steps

Step 5
Fasten the Me 7-Segment Display to the plate I1, and finally fasten the M4X8 screw to the brass stud.
Wiring diagram

- Me 7-Segment Display
- Ultrasonic sensor
- Line sensor
- Me temperature and humidity sensor
Project program

```plaintext
Forever
if on board button pressed then
    change k by 1
    wait until on board button released
    wait until on board button released
if k mod 2 = 0 then
    set value to humituresensor Port1 humidity
    set led on board all red 0 green 0 blue 20
else
    set value to humituresensor Port1 temperature
    set led on board all red 20 green 0 blue 0
set 7-segments display Port4 number value
if k = 100 then
    set k to value
```

"mBot Program"