

# Tests as run

## 1. I2C testing in case of failure

There is a problem with the I2C communication that makes the code fail. To solve this problem the next tests has been done:

### 1. Verify the connections

All the I2C connections are well connected with the corresponding PINS

### 2. Check the components

The components connected are the corresponding ones and in the correct positions according to the Ki Cad schematic. Furthermore no component has any short circuit.

### 3. Verify the addresses of the device

The device address is the correct one. It can be seen in the I2C Addresses document of the nanosatlab wiki or in the datasheet of the device

### 4. Check step by step that all the connections are working fine

- Disconnect the intern pull up / pull down resistances of the nucleoboard and connect it in a protoboard with a value of 20K ohms. Check now the SCL transmission with an oscilloscope
- Check now the SDA transmission and check that it is transmitting the correct address of the sensor device
- Connect now the PCB, if it do not have its own pull up resistance connect it using the protoboard and the 20Kohms resistances.
- With the oscilloscope check if the device is responding

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