**Introduction**

Technology changes the way we relate with our surrounding, imagine a world where you don’t need to turn on the air conditioner before it comes on or you don’t need switch it of before it knows to do so. Probably you’d link the air conditioner to your smart phone and regulate the temperature directly from your smart device.

We’d be taking you through creating something similar to the above mentioned projects but with a little creativity and insight you’d achieve almost all the projects which we’ve talked about. So let’s started.

**List of Components**

Temperature sensor (DS18B20)

Buzzer

Resistor

Jumper wires

Breadboard

InventOne dev board

You’d get most of these components online from amazon, aliexpress, hub360 or ebay. To order for your inventone board just click this link.

**Tutorial**

To aid your understanding of the project, we’ve added a breadboard diagram which we created using fritzing. The temperature sensor is a DS18B20 onewire device, for more info on DS18BXX devices check out their datasheet or these great tutorial from Adafruit.

The sensor needs a pullup resistor at its data pin whenever it is sending serial information to a microcontroller; the datasheet gives more information on why this is needed.

I believe the circuit is pretty straight forward, please take note of the pin numbers when making your connections. Also, we are powering the buzzer with 5V from the inventone board.

**Code**

To make use of this sensor you need to download the OneWire and DallasTemperature libraries for your Arduino IDE. You can get the zip file of these libraries from these git repos, upon downloading the libraries goto SKETCH, INCLUDE LIBRARY, ADD ZIP LIBRARY. There are other ways of adding a library, to get more info check out these tutorials in the official Arduino forum.

So basically we just used one of the example codes that comes with the library all that we did was to change the pin number to fit the one used on the inventone, and we added a new pin to accommodate the buzzer.

To be sincere I can’t explain most of the codes, yeah that’s right you’ve just got to be a lazy programmer.