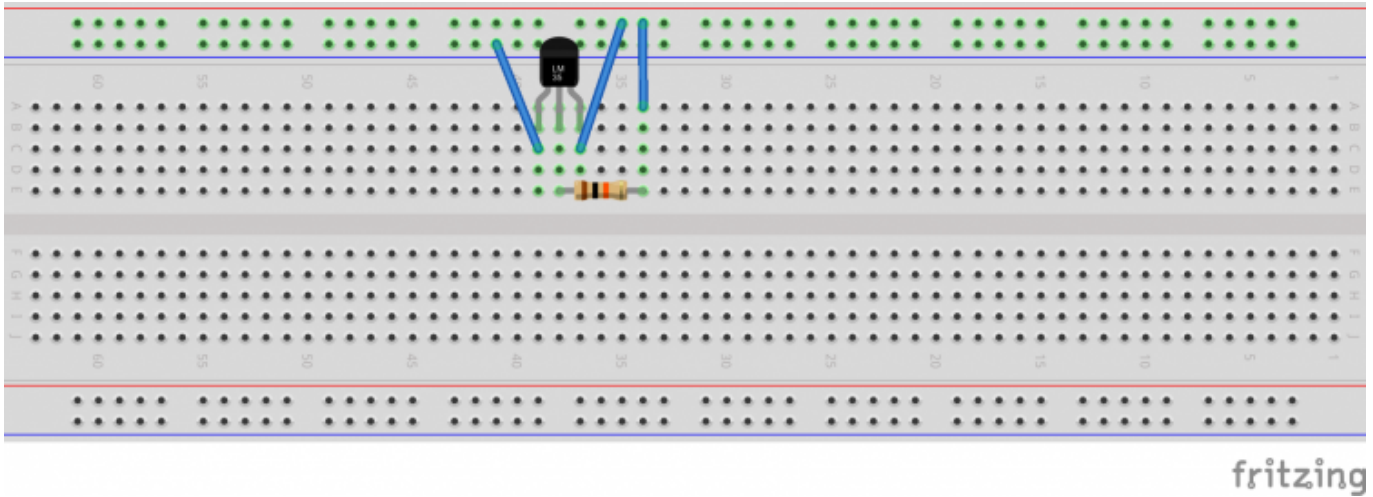


# Dallas 1-Wire Support

- Support for Dallas 1 Wire is included on Kernel 3.10.67-52 and upwards. Make sure you are updated.
- Will cover an example of a temperature sensor well known **DS1820** other 1 wire IC's are supported too.

Default GPIO for 1-Wire is **Pin #7 (GPIO83)**

- **Connection: With External-Supply**



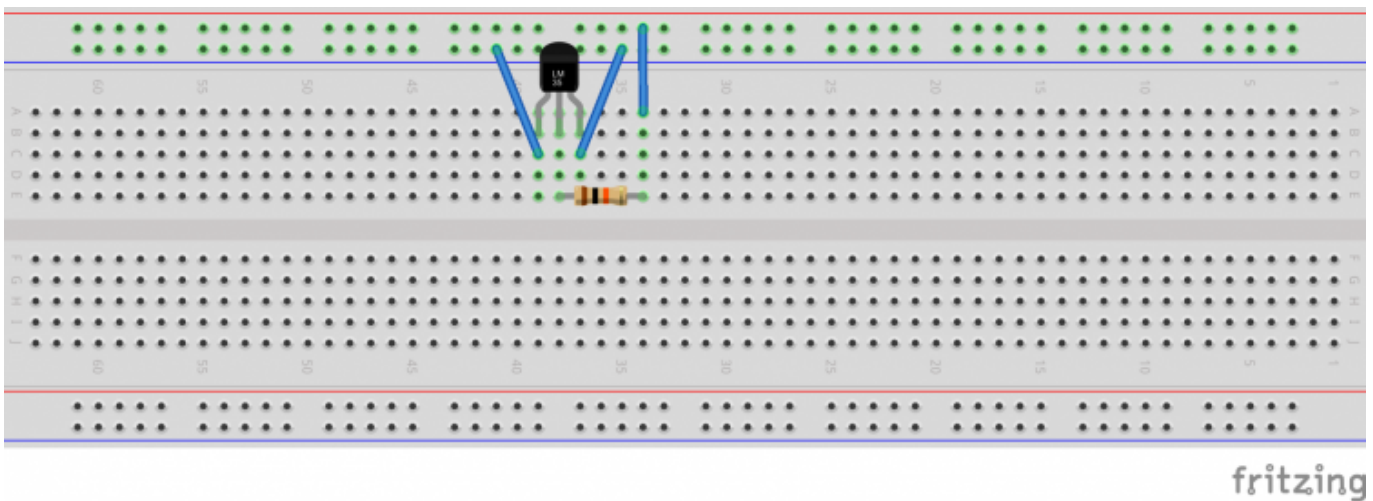
Pin 1 (Left): Ground (-)

Pin 2 (Middle): Pin #7 C1

Pin 3 (Right): VCC (3.3V)

You also need to add a resistor from 4.7k to 10k between pin 2.

- **Connection: Supplying the Parasite-Powered**



Pin 1 (Left): Ground (-)

Pin 2 (Middle): Pin #7 C1

Pin 3 (Right): Ground (-)

You also need to add a resistor from 4.7k to 10k between pin 2.

- Load the required kernel modules:

```
modprobe w1-gpio && modprobe w1-therm
```

- Check if your sensor is working:

```
root@odroid:~# cd /sys/bus/w1/devices/  
root@odroid:/sys/bus/w1/devices# ls  
10-000802f41d67 w1_bus_master1  
root@odroid:/sys/bus/w1/devices#
```

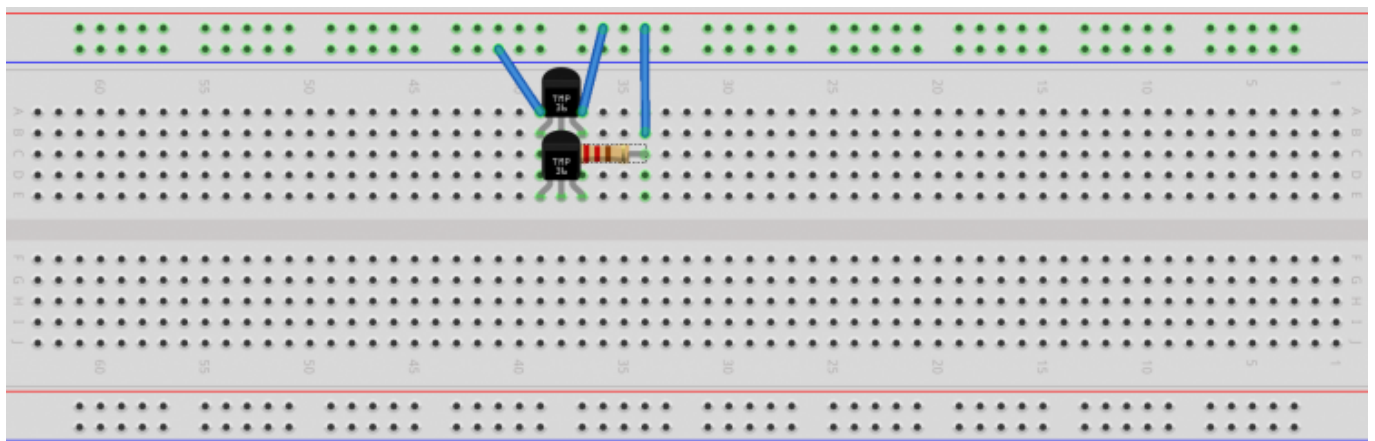
As you can see my sensor is detected as **10-000802f41d67**, each sensor has a different id. So yours will be different.

- Read the temperature:

```
root@odroid:/sys/bus/w1/devices# cd 10-000802f41d67  
root@odroid:/sys/bus/w1/devices/10-000802f41d67# cat w1_slave  
33 00 4b 46 ff ff 03 10 30 : crc=30 YES  
33 00 4b 46 ff ff 03 10 30 t=25562  
root@odroid:/sys/bus/w1/devices/10-000802f41d67#
```

Temperature is t=25562 or 25.562 degree's Celsius.

Multiple sensors can be connected on the same line as the draw below.



fritzing

```
root@bigsmall:/sys/bus/w1/devices# ls  
10-000802f37119 10-000802f41d67 w1_bus_master1
```

Two sensors in parallel.

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