



# Adafruit HTU21D-F Temperature & Humidity Sensor Breakout Board – Fully Assembled

PRODUCT ID: 3515



<https://www.adafruit.com/product/3515#Slide4>

- DESCRIPTION

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It's summer and you're sweating and your hair's all frizzy and all you really want to know is why the weatherman said this morning that today's relative humidity would max out at a perfectly reasonable 52% when it feels more like 77%. Enter the HTU21D-F Temperature + Humidity Sensor – the best way to prove the weatherman wrong!

This I2C digital humidity sensor is an accurate and intelligent alternative to the much simpler [Humidity and Temperature Sensor – SHT15 Breakout](#). It has a typical accuracy of  $\pm 2\%$  with an operating range that's optimized from 5% to 95% RH. Operation outside this range is still possible – just the accuracy might drop a bit. The temperature output has an accuracy of  $\pm 1^\circ\text{C}$  from  $-30\sim 90^\circ\text{C}$ . If you're looking to measure temperature more accurately, we recommend the [MCP9808 High Accuracy I2C Temperature Sensor Breakout Board](#).

Such a lovely chip – so we spun up a breakout board that includes the Filtered version (the white bit of plastic which is a PTFE filter to keep the sensor clean), a 3.3V regulator and I2C level shifting circuitry. This lets you use it safely with any kind of microcontroller with 3.3V–5V power or logic. Each order comes with one fully assembled and tested PCB breakout with headers attached and everything.

[It's also very easy to use, thanks to our Arduino library and tutorial. Check out our tutorial for pinouts, wiring, files, etc](#)

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## . TECHNICAL DETAILS

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- Dimensions (including header): 18mm x 16mm x 11.5mm / 0.7" x 0.6" x 0.4"
  - Weight: 1.4g
  - I2C 7-bit address 0x40
  - [PCB CAD files, datasheets, Fritzing object, etc available in the tutorial](#)
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