

Lab in a Box – Measurement of CO₂ Air Concentration with a Nondispersive Infrared Sensor
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In times of the corona pandemic, the determination and monitoring of the CO₂ indoor air concentration becomes especially important. It is used as an index of indoor air quality and provides information on how to optimize ventilation.

The presented experiment is addressed as a Homelab experiment to students of meteorology. The components used are low cost but still allow impressive quantitative measurements. The NDIR sensor (MH-Z19B) is controlled and read out by an Arduino (fig. 1). The students thus acquire competences in the field of computer-aided data acquisition.

The experiment was handed out to the students in boxes – a lab in a box.

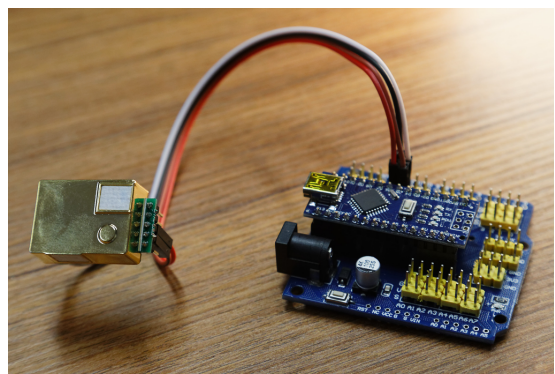


Figure 1: Data acquisition with Arduino and CO₂ sensor, a simple setup.