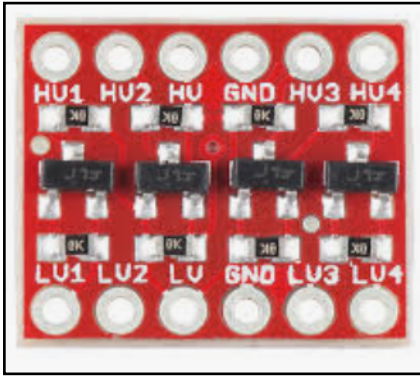
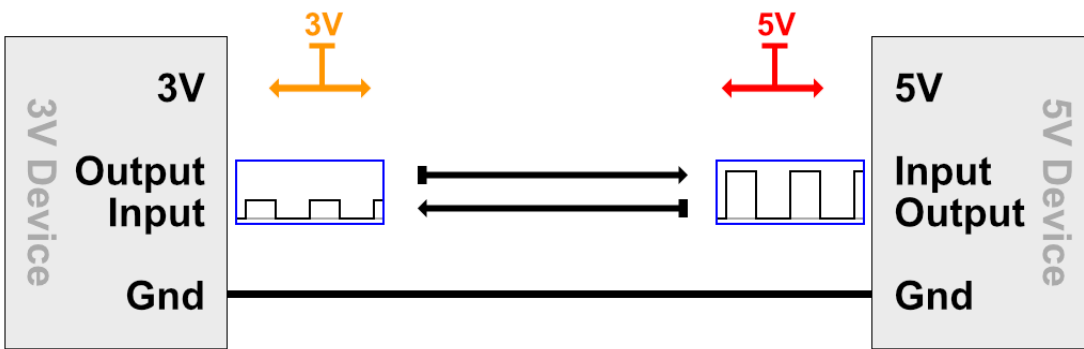


Level converter



Goal: Function and use
Content: Purpose
 Possible application
 Alternative



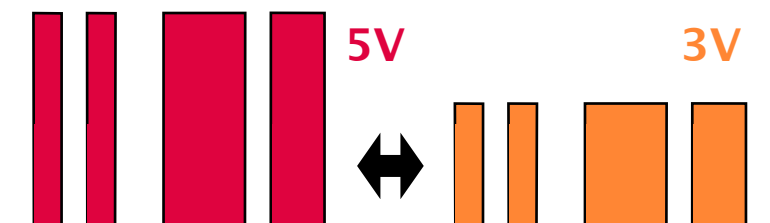
Purpose of the level converter

Level converters are used if system with different input or output voltages are to be connected.

If the signal level of a microcontroller or sensor (e.g. 3V) has to be converted to a different signal level (e.g. 5V), a level converter is a good choice.

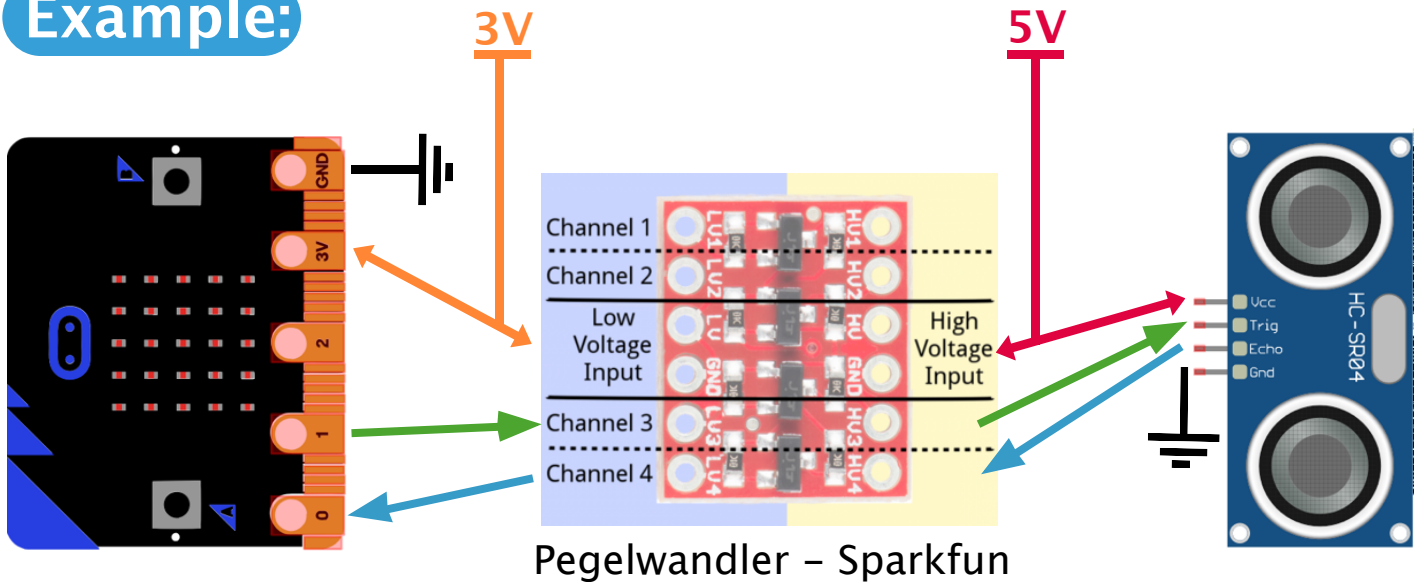
Possible application

For example, communication between a microcontroller, which does not tolerate 5V (max. 3V), and a 5V sensor.



The 5V signals of the sensor are converted to a 3V level, which is suitable for the microcontroller, and the other way around.

Example:



Please note

Sometimes, the 3V level is sufficient for the input pin of the 5V sensor. One glance into the data sheet of the sensor helps to ensure reliable operation.

Potential alternatives

To transform a signal level to a lower value, a voltage divider can be used in some cases.

see worksheet "**Voltage divider**"

Info

If only a fixed supply voltage is required for a microcontroller or sensor, it can be generated from a higher voltage by means of a voltage divider.

These are available in different versions.



Example:
Voltage divider with 5V: L7805