*Cable Length Effect on IIC Communication*

Configurations tested:

* 100kHz and 10kHz clock speed (SCL) through standard jumper wires.
* 100kHz and 10kHz clock speed (SCL) through 340cm long cable, only the signal wires.
* 100kHz and 10kHz clock speed (SCL) through 340cm long cable with power and ground.

Wire: Single jumper

Pull-up: 1k

Frequency: 10kHz

Chart

Description automatically generated with medium confidence

Wire: Single jumpers

Pull-up: 1k

Frequency: 100kHz

Graphical user interface

Description automatically generated

Wire: 340cm, only signal wires

Pull-up: 1k

Frequency: 10k

A picture containing diagram

Description automatically generated

Wire: 340cm, only signal wires

Pull-up: 1k

Frequency: 100k

A picture containing text

Description automatically generated

Graphical user interface

Description automatically generated

Wire: 340cm, signal wires and power wires.

Pull-up: 1k

Frequency: 10k

Note: Too much noise for it to get an accurate rise and fall time.

Graphical user interface

Description automatically generated

Wire: 340cm, signal wires and power wires.

Pull-up: 1k

Frequency: 100k

Note: Too much noise for it to get an accurate rise and fall time.

A picture containing chart

Description automatically generated

Graphical user interface

Description automatically generated