

LEGO® Education SPIKE™ Prime Technical Specifications

Technic™ Distance Sensor



Hardware name

Technic™ Distance Sensor

Description

The sensor can measure the distance to an object or surface using ultrasonic technology. In addition, the sensor has a light output around the “eyes,” which is divided into four segments that can be activated individually. The back of the sensor can be removed and used as “break-out” access to the LPF2 wired platform for third-party suppliers and advanced users.

Key features

Distance Sensor:

- Distance Sensing from 50 to 2000 mm
- Fast distance sensing from 50 to 300 mm
- White light output around the sensor “eyes” divided into four segments – two upper and two lower segments

Back of the sensor (break-out):

- Can be detached from the front of the sensor by removing two screws
- Provides access to an 8-pin female header that allows direct and easy access to the LPF2 system for adding third-party sensors and boards

The sensor has a Technic build geometry that allows for versatile building and easy integration into models

Connector type

LEGO® Power Functions 2.0 (LPF2) for connection to LEGO Smarthubs

Wire length

250 mm (fixed to sensor)

Sensor sample rate

100 Hz (with ultrasonic function)

Sensor input

Distance sensing:

- Range total: 50-2000 mm +/- 20 mm
- Entrance angle: +/- 35 degrees (varies according to the distance)
- Sensor output resolution: 1 mm

Fast Distance sensing:

- Range total: 50-300 mm +/- 15 mm
- Entrance angle: +/- 35 degrees (varies according to the distance)
- Sensor output resolution: 1 mm

Sensor output

LED output:

- Color: white 4000K
- Controlled individually (4 segment LEDs in total)
- Output power: controllable from 0-100% in increments of 1%

The LEGO® Education SPIKE™ app may not support all hardware features and functionalities.

