

LEGO® Education SPIKE™ Prime Technical Specifications

LEGO® Technic™ Distance Sensor



Hardware name LEGO® 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 \pm 20 mm
- Entrance angle: \pm 35 degrees (varies according to the distance)
- Sensor output resolution: 1 mm

Fast Distance sensing:

- Range total: 50–300 mm \pm 15 mm
- Entrance angle: \pm 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 might not support all hardware features and functionalities.

