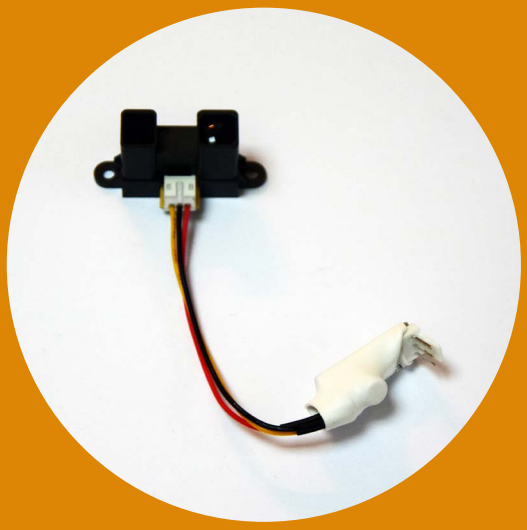
PROXIMETER

INFRARED

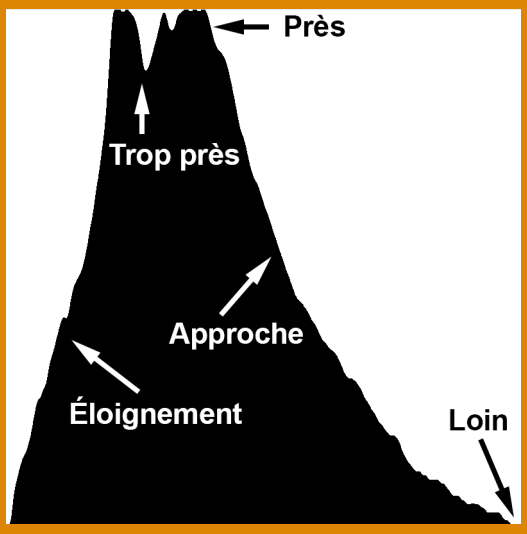
PRECISION



DIRECTIVE

MEASUREMENT

REFLECTION



RANGEFINDER

SILENCE

APPROACH

PROXIMITY

PASSAGE

Sensor

Distance

Detection

- Precise distance measurement
- Infrared optical triangulation
- Insensitive to visible light
- Active sensor: light transmitter, receiver of the reflected beam, reception angle calculation
- Through air, glass and water

Range

- Very directive range angle
- Fixed ranges depending on the module:
  - 30 cm, 80 cm, 1.5 m, 6 m

Analog signal

- Continuous variation depending on the distance of the nearest obstacle.
- Data increases as the obstacle gets closer to the sensor.
- Non-linear: very sensitive at close range, much less sensitive to variations far away.
- Data folds at very close proximity.

Settings

- No adjustment: each module has a defined range

Interferences

- Light from another proximity sensor
- Reflection of its own light

Processing the data

- Calculate the distance of an obstacle(object/person) by data calibration and linearization.

Interpretations

- Distance, passage, movement
- Speed, spikes, movement direction (closer/further)
- Presence

Application examples

- Control interfaces for musicians
- Animations for store windows
- Detecting approaching visitors in a video, sound, or mecanical installation
- Detecting a moving object
- Interactive installations, music, fine arts, shows, instruments
- Interacting with a liquid in a see-through container