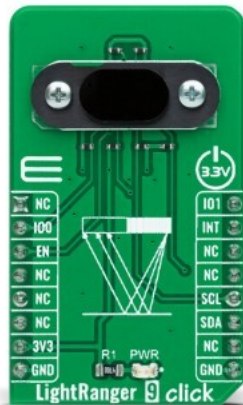


# LightRanger 9 Click



PID: MIKROE-5237

**LightRanger 9 Click** is a compact add-on board suitable for range-finding and distance sensing applications. This board features the TMF8828, a dToF (direct time of flight) optical distance sensor with an integrated Vertical Cavity Surface Emitting Laser (VCSEL) achieving up to 5m target detection distance from [ams AG](#). Due to its lens on the SPAD, it supports 3x3, 4x4, 3x6, and 8x8 multizone output data and a wide, dynamically adjustable field of view. All raw data processing is performed inside the TMF8828, providing distance information and confidence values through its I2C interface. A unique addition to this Click board™ represents an additional protective lens that further reduces interference and improves the sensor's accuracy. This Click board™ is suitable for presence (object) detection, distance measurement, industrial ranging, inventory control, and many other applications.

LightRanger 9 Click is supported by a [mikroSDK](#) compliant library, which includes functions that simplify software development. This [Click board™](#) comes as a fully tested product, ready to be used on a system equipped with the [mikroBUS™](#) socket.

Mikroe produces entire development toolchains for all major microcontroller architectures.

Committed to excellency, we are dedicated to helping engineers bring the project development up to speed and achieve outstanding results.



ISO 27001: 2013 certification of informational security management system.  
ISO 14001: 2015 certification of environmental management system.  
OHSAS 18001: 2008 certification of occupational health and safety management system.



ISO 9001: 2015 certification of quality management system (QMS).

## Specifications

Type	Optical
Applications	Can be used for presence (object) detection, distance measurement, industrial ranging, inventory control, and more
On-board modules	TMF8801 - Multizone Time-of-Flight sensor from ams AG
Key Features	Direct ToF technology with high sensitivity SPAD detection, 8x8 configurable multi-zone configuration with multi-object detection, adjustable field of view, high performance on-chip sunlight rejection filter and algorithm, onboard protective lens, and more
Interface	I2C
Compatibility	mikroBUS
Click board size	M (42.9 x 25.4 mm)
Input Voltage	3.3V

## Resources

[mikroBUS™](#)

[mikroSDK](#)

[Click board™ Catalog](#)

[Click Boards™](#)

## Downloads

[LightRanger 9 click example on Libstock](#)

[LightRanger 9 click schematic](#)

[TMF8828 datasheet](#)

[LightRanger 9 click 2D and 3D files](#)

Mikroe produces entire development toolchains for all major microcontroller architectures.

Committed to excellency, we are dedicated to helping engineers bring the project development up to speed and achieve outstanding results.



ISO 27001: 2013 certification of informational security management system.  
ISO 14001: 2015 certification of environmental management system.  
OHSAS 18001: 2008 certification of occupational health and safety management system.



ISO 9001: 2015 certification of quality management system (QMS).