

# Proximity sensor bit datasheet



The proximity sensor bit detects objects at relatively short-range using infrared (IR) light. IR light is transmitted from the IR LED and, if reflected back by an object or person, the IR receiver detects this and registers a detection.

Obstacles can be detected at either short range (approximately 20cm/8in) or long range (approximately 40cm/16in). The range is affected by the amount of ambient light and will not work under direct sunlight.

Use in ports	Stencil guide	Bit type	Block category
0 - 7	⑦	Input	Sensing

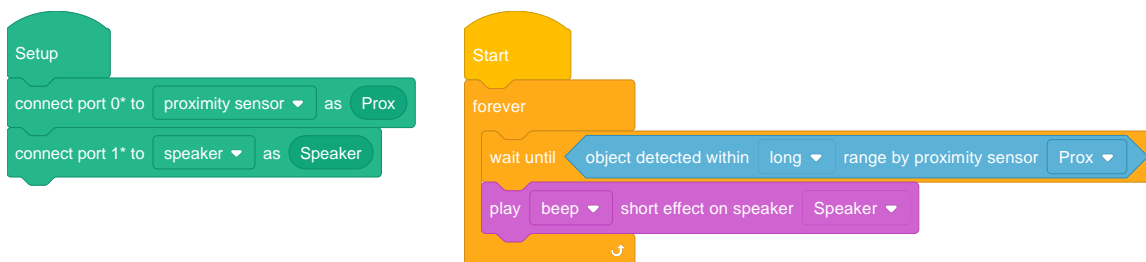
## Programming blocks

The programming block for the proximity sensor bit is a sensing block so it must be used with control blocks, such as 'if<>then' or 'wait until<>' blocks.



## Example program

This sample program will make the speaker bit beep continuously while an object is detected at long range.



## In the real world

Proximity sensors of various types are used in many inventions to detect people (i.e. burglar alarms) and obstacles (robot vacuum cleaner).

Proximity sensors are useful because, unlike buttons, they don't require contact to activate.

In the real-world proximity sensors are used in contactless sanitiser and soap dispensers where making hand contact could pass on an infection to someone else.

