Text

Description automatically generated with low confidence

**Ultrasonic**

https://makecode.microbit.org

Maqueen has an ultrasonic distance sensor, for navigating like a bat using high-pitched sound above the range of human hearing.

# **First, import the ‘maqueen’ library**

# A picture containing engine, toy Description automatically generated**Read ultrasonic sensor**

This returns the distance in centimetres (cm).

* If there is no obstacle it returns values over 100cm.
* It begins to detect objects (unreliably) at about 50cm.
* The nearer they are, the more accurate the distance reading.
* A large flat surface provides more ‘echo’ than an irregular object like another robot.

The following code assigns the distance reading to a variable ‘distance’, and then shows the value on the LED display.

Graphical user interface, text, application

Description automatically generated

**Remember to turn the robot on, otherwise the sensor won’t work.**

*Can you use the distance sensor to stop the robot crashing into obstacles,   
such as other robots.*