Distance Measurement Sensor Applications. Senix ToughSonic Ultrasonic Sensors measure the distance of target objects or materials through the air using “non-contact” technology. They measure distance without damage and are easy to use and reliable

Provides precise, non-contact distance measurements within a 3 cm to 3 m range. Ultrasonic measurements work in any lighting condition, making this a good choice to supplement infrared object detectors. Simple pulse in/pulse out communication requires just one I/O pin.

An Ultrasonic sensor is a device that can measure the distance to an object by using sound waves. It measures distance by sending out a sound wave at a specific frequency and listening for that sound wave to bounce back.

Ultrasonic sensors “are based on the measurement of the properties of acoustic waves with frequencies above the human audible range,” often at roughly 40 kHz). They typically operate by generating a high-frequency pulse of sound, and then receiving and evaluating the properties of the echo pulse

Definition and relationship to the electromagnetic spectrum. Infrared radiation extends from the nominal red edge of the visible spectrum at 700 nanometers (nm) to 1 millimeter (mm). This range of wavelengths corresponds to a frequency range of approximately 430 THz down to 300 GHz.