

# ENGR 3421: ROBOTICS I

## Ultrasonic Distance Sensor

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# Outline

## Sonar Sensor



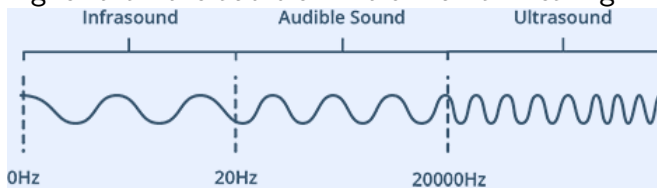
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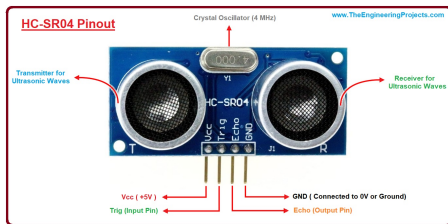


# Ultrasound

Ultrasound is high-pitched sound waves with frequencies higher than the audible limit of human hearing.



# HC-SR04 Ultrasonic distance sensor



- Consists of two ultrasonic transducers: a transmitter and a receiver.
- The transmitter converts electrical signal into 40 KHz ultrasonic sound pulses.
- The receiver listens for the transmitted pulses.
- If receives the pulses back, produces an output pulse to determine the distance.

