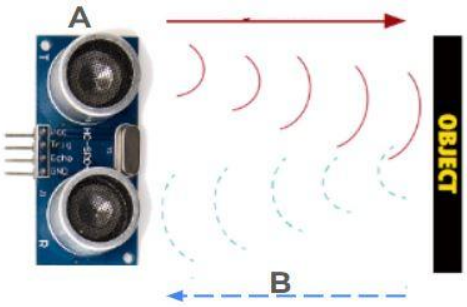
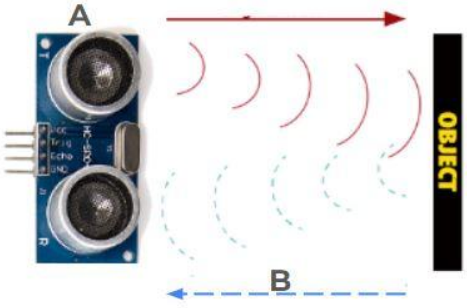
Mission 10 Review Kahoot Questions

Select the computer science definition for: BREADBOARD	a. A plastic board with tiny holes for inserting electronic components. b. An electronic component that limits the amount of current. c. A peripheral that can detect an object and its distance. d. A way to detect and locate objects by using reflected sound waves.
Select the computer science definition for: SONAR	a. A plastic board with tiny holes for inserting electronic components. b. An electronic component that limits the amount of current. c. A peripheral that can detect an object and its distance. d. A way to detect and locate objects by using reflected sound waves.
Select the computer science definition for: ULTRASONIC SENSOR	a. A plastic board with tiny holes for inserting electronic components. b. An electronic component that limits the amount of current. c. A peripheral that can detect an object and its distance. d. A way to detect and locate objects by using reflected sound waves.
Select the computer science definition for: TERMINAL STRIP	a. Something used to connect items on a breadboard b. An electronic component that limits the amount of current. c. A peripheral that can detect an object and its distance. d. A column of tiny holes on a breadboard that are connected.
Select the computer science definition for: JUMPER WIRE	a. Something used to connect items on a breadboard b. An electronic component that limits the amount of current. c. A peripheral that can detect an object and its distance. d. A column of tiny holes on a breadboard that are connected.
Select the computer science definition for: RESISTOR	a. Something used to connect items on a breadboard b. An electronic component that limits the amount of current. c. A peripheral that can detect an object and its distance. d. A column of tiny holes on a breadboard that are connected.
Label the part of the diagram labeled “A”: 	a. Transmitter b. Receiver c. Original wave d. Reflected wave
Label the part of the diagram labeled “B”: 	a. Transmitter b. Receiver c. Original wave d. Reflected wave
What type of peripheral is the ultrasonic sensor trigger?	a. Digital input b. Digital output c. Pulse input d. Pulse output

What type of peripheral is the ultrasonic sensor echo?	a. Digital input b. Digital output c. Pulse input d. Pulse output
What data is transmitted by the ultrasonic sensor?	a. Raw time data b. Transmission time c. High-frequency sound d. Distance to the object
What information is returned by the ultrasonic sensor?	a. Total time in milliseconds b. Transmission and receiving time in microseconds c. The sound wave d. Distance to the object
What is the formula for finding the distance to an object when using a sonar reading?	a. distance = SOUND_SPEED * 2 / echo_time b. distance = SOUND_SPEED * echo_time / 2 c. distance = SOUND_SPEED * echo_time d. distance = SOUND_SPEED / echo_time

What does the line of boxed code do?
`def convert_to_centimeters(echo_signal):`
`  echo_time = echo_signal / 1000000`
`  return SOUND_SPEED * (echo_time / 2)`
	a. Returns the time from the ultrasonic sensor
	b. Calls the function for converting time to distance
	c. Converts microseconds to seconds
	d. Converts time to distance

What is the purpose of the code?
`while not echo:`
`  if time.ticks_ms() > WAIT_TIME + echo_start:`
`  return -1`
	a. Time out feature in a loop so it won't keep waiting.
	b. Returns the distance to an object.
	c. Returns the time for transmission and receiving.
	d. Checks to see if elapsed time is more than wait time.

Why does an LED need a resistor?	a. To connect it to the breadboard. b. To receive data from the sensor. c. To boost the voltage. d. To limit the voltage.
Which LED lead is positive?	a. The shorter side b. The longer side c. The red one d. Either one; both are the same
What does the LED negative lead connect to?	a. 3.3 V b. The resistor c. GND d. Input/Output
When setting up the warning system, which condition comes first?	a. Check for the warning distance b. Check for the alert distance c. Check if the rover isn't close to the warning or alert distances d. Any of the conditions can be first
When is the power_down() function called?	a. In the main program, before the while True: loop. b. In the main program's while True: loop. c. If neither the warning or alert conditions are met. d. When BTN_A is pressed and breaks the loop.