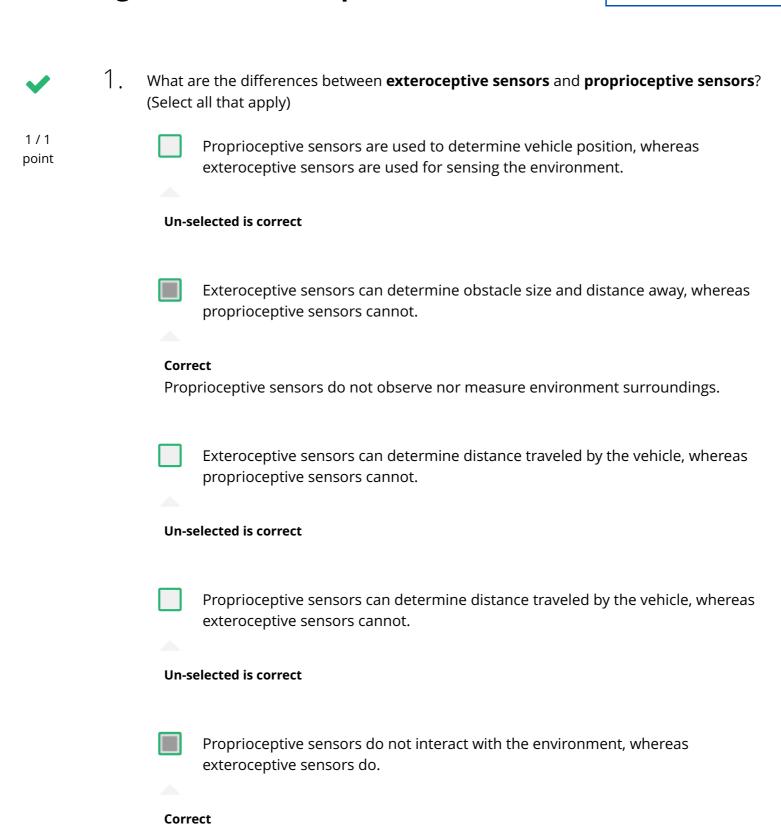
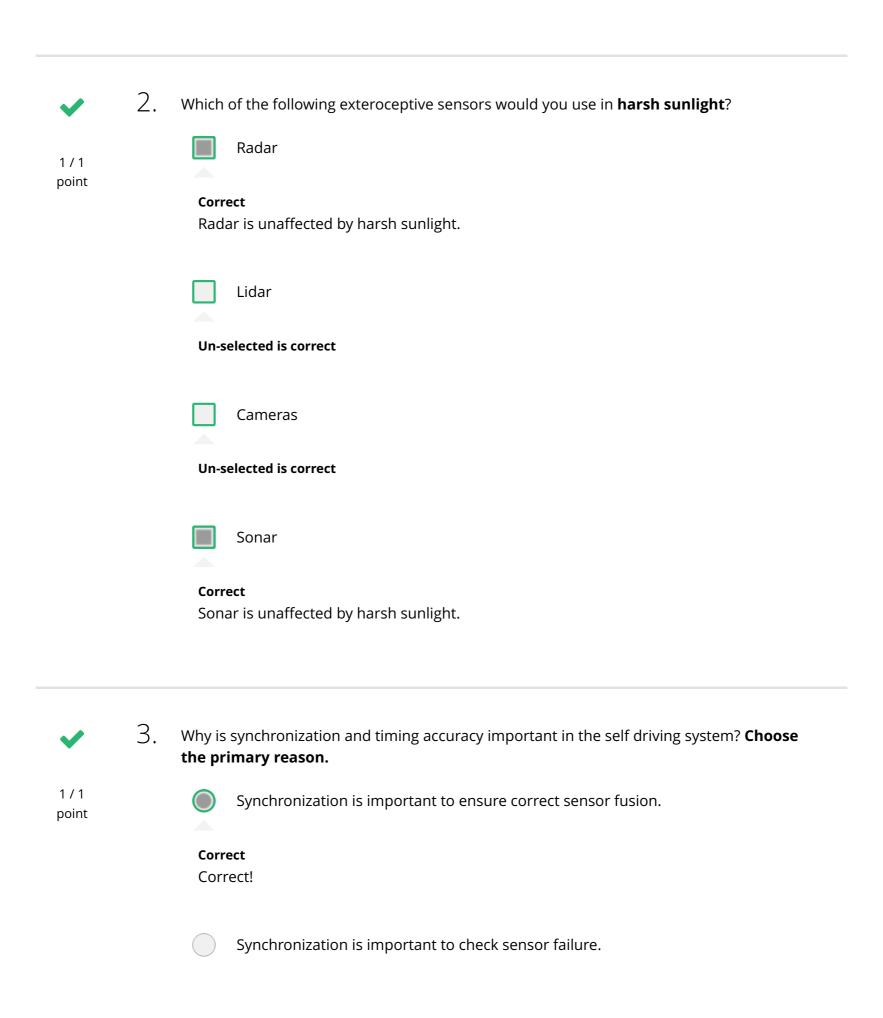
✓ Congratulations! You passed!

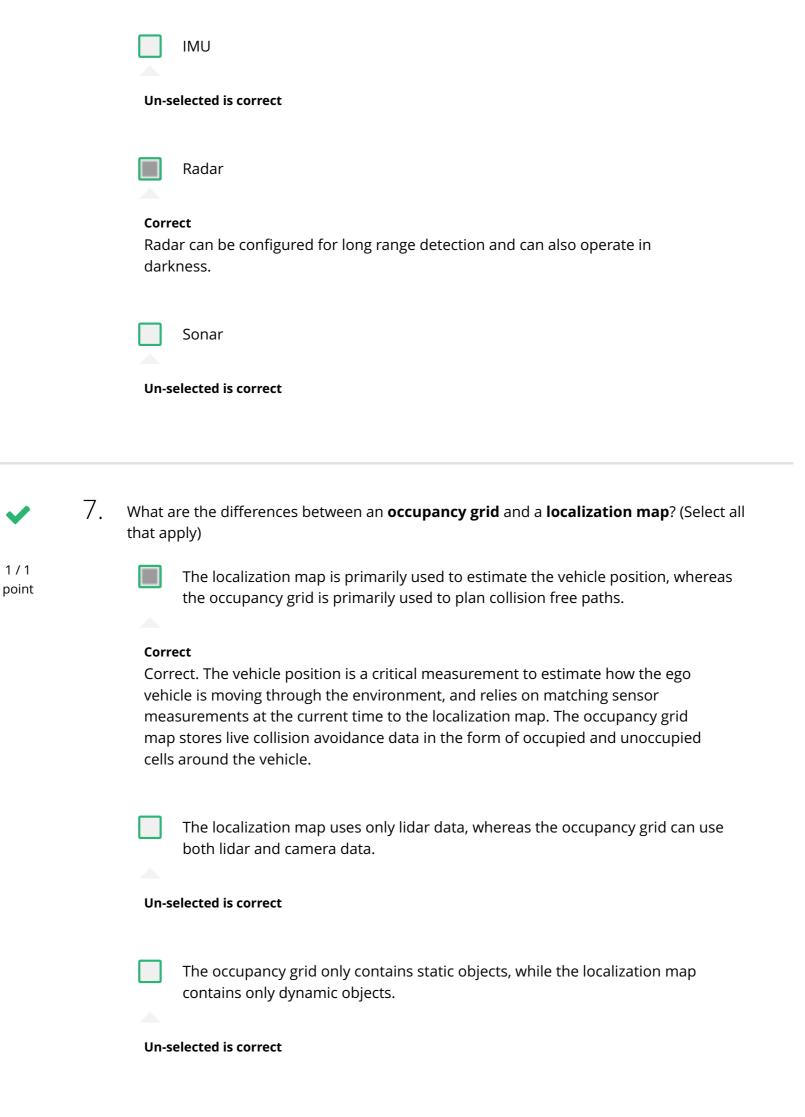
Next Item

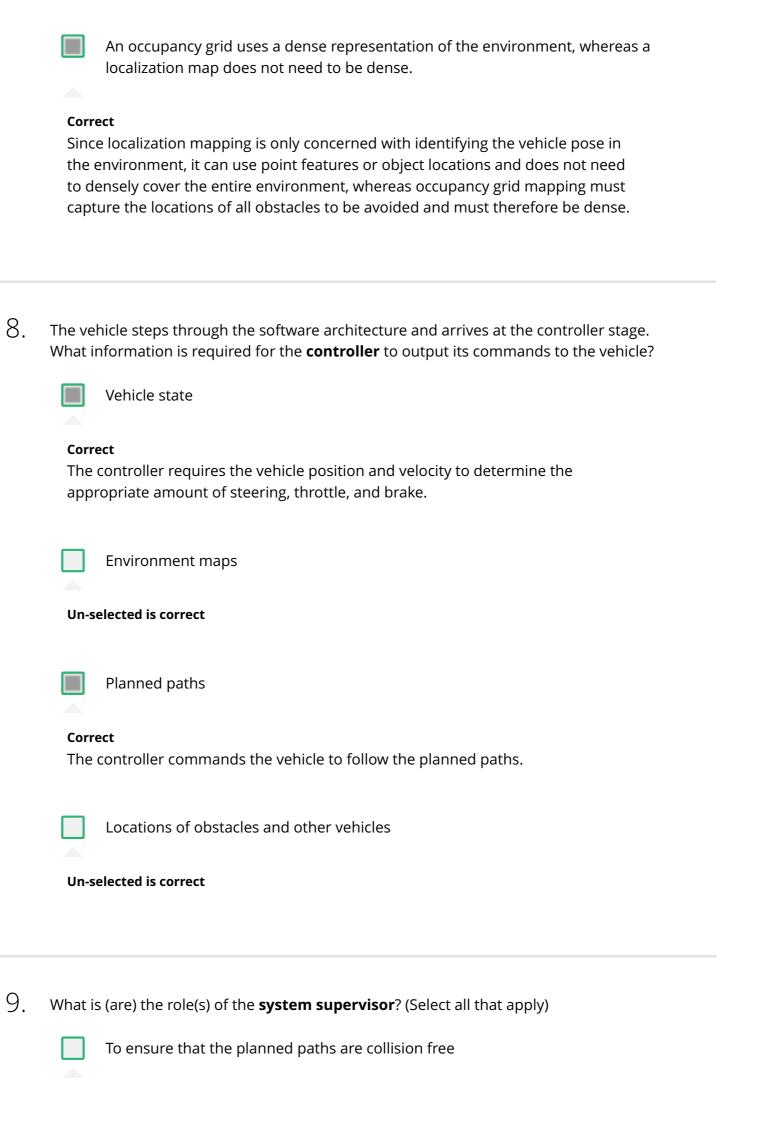


Exteroceptive sensors contain active sensors such as Lidar or Sonar, which interact with the environment by emitting light or sound and waiting for response.



		Synchronization is important to ensure that sensors measure the environment at the same time.
		Synchronization is important to ensure organized computation.
1/1 point	4.	Your autonomous vehicle is driving on the German autobahn at 150 km/h and you wish to maintain safe following distances with other vehicles. Assuming a safe following distance of 2s, what is the distance (in m) required between vehicles? Round your answer to 2 decimal places. 83.33 Correct Response 150*2/3.6
1/1 point	5.	Using the same speed of 150 km/h, what is the braking distance (in m) required for emergency stops? Assume an aggressive deceleration of 5 m/s^2. Round your answer to 2 decimal places. 173.61 Correct Response (150/3.6)^2/(2*5)
1/1 point	6.	Suppose your vehicle was using long range cameras for sensing forward distance, but it is now nighttime and the images captured are too dark. Which of the following sensors can be used to compensate? Lidar Correct Lidar can be configured for long range detection and can also operate in darkness.





1/1

point

V

11. What common objects in the environment appear in the **occupancy grid**?

Planning a route to a destination

Lane boundaries

