

Artificial Intelligence Module 1.3: Self-Driving Cars

Activity 1

Watch the video and fill in the chart on how the Self-Driving Car works. There are many parts of the self-driving car. Be sure to write notes in the appropriate section of the chart.

Click the Link: [Autonomous car / self-driving car - How it works! \(Animation\)](#)

Question	LiDAR	Cameras	RADAR	GPS
What does it sense/detect? (light, sound, touch, etc)				
Where is this sensor located on the car?				
Why is it useful to have this type of sensor? What type of objects on the road can it detect or under what conditions is it useful?				
What is one disadvantage?				
Add any interesting detail or something you learned.				



Developed by Amber Jones for the AI4GA (Artificial Intelligence for Georgia) project funded by National Science Foundation awards DRL-2049029 and DRL-2048502.

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Activity 3: Summary and Reflection

1. Choose 1 sensor from the chart. **Predict** what could go wrong if the sensor you chose were to malfunction **and explain** which of the other sensors could help the car to continue to navigate correctly/safely?

2. In a paragraph **reflect**: Did learning about the sensors and subsystems of a self-driving car make you feel more or less comfortable with the technology? Why?



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Bonus Activity: Label the Nuro R2 Sensors

Match each sensor on the Nuro R2. **Drag and drop** the 6 labels on the right to the numbers on the car.



Ultrasonics

Lidar

Thermal Imaging Cameras

360 Overlapping Cameras

Emergency Vehicle Audio Detection

Short and Long Range Radar



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