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Mr. Winters

English 101

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Text is double-spaced

Header contains student's last name followed by page number

Paper title centered

Can You Find Me Now?

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How is a Nintendo Wii game console able to determine the location of a Wii Remote while a player interacts with a game? The answer is triangulation, a process that determines the location of an object by measuring the angles from two or more fixed points.

Surveyors often use triangulation to measure distance. Starting at a known location and elevation, surveyors measure a length to create a base line and then use a theodolite to measure an angle to an unknown point from each side of the base line (Jains 30-48). The length of the base line and the two known angles allow a computer or person to determine the location of a third point.¹

Parenthetical reference (citation)

Superscripted note reference mark

Similarly, the Nintendo Wii game console uses triangulation to determine the location of a Wii Remote. A player places a sensor bar, which contains two infrared transmitters, near or on top of a television. While the player uses the Wii Remote, the Wii game console determines the remote's location by calculating the distance and angles between the Wii Remote and the two transmitters on the sensor bar. Determining the location of a Wii Remote is relatively simple because the sensor bar contains only two fixed points: the transmitters.

A more complex application of triangulation occurs in a global positioning system (GPS). A GPS consists of one or more earth-based receivers that accept and analyze signals sent by

¹ Cordoba and Sarkis state that electronic theodolites calculate angles automatically and then send the calculated angles to a computer for analysis (25).

Content note positioned as footnote; formatted the same as other paragraphs; page number added

"Wii console" changed to "Wii game console" for three instances

satellites to determine a receiver's geographic location. GPS receivers, found in handheld navigation devices and many vehicles, use triangulation to determine their location relative to at least three geostationary satellites. According to Sanders, the geostationary satellites are the fixed points in the triangulation formula (Understanding Satellites and Global Positioning Systems).

The next time you pass a surveyor, play a Nintendo Wii, or follow a route suggested by a vehicle's navigation system, keep in mind that none of it might have been possible without the concept of triangulation.

The term "geostationary" has been copied/pasted from/in this line

Word "prescribed" changed to "suggested"

Alphabetical list of sources: second line in paragraphs indented one-half inch; publication medium inserted; underline removed, italic applied

Works Cited

Total of three pages in document

Cordoba, Nicolas E., and Kara A. Sarkis. *The Surveyor's Theodolite Formula*. Orlando: Orange County Press, 2012. Print.

Jains, Malila. "How Surveyors Measure Distance and Calculate Angles." *Today's Modern Surveyor* Mar. 2012: 30-48. Print.

Sanders, Gregory B. *Understanding Satellites and Global Positioning Systems*. n.d. Course Technology. Web. 27 Feb. 2012.

The document contains no spelling or grammar errors