Sheree Wilder

8th Grade

Robotics

EQ: Is there a relationship between time robot and has travelled and distance it has travelled?

Standards: (Math) 8.EE.5 - Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.

CSP: 2.3.1 Use models and simulations to raise and answer questions. [P3]

4.2.1 Express an algorithm in a language. [P5]

5.3.1 Evaluate a program for correctness. [P4]

5.3.2 Develop a correct program. [P2]

5.3.3 Collaborate to solve a problem using programming. [P6]

5.4.1 Employ appropriate mathematical and logical concepts in programming. [P1]

Objective: Students will plot 5 points indicating distance their robot has travelled at 5 different timed intervals to make predictions based on the line plot.

Do Now: Code.org 10 minutes, Praise the top 10 students based on levels completed

Process: Teacher will use race.a2w example world from Alice to introduce activity. Students will record distance robot travelled at timed intervals and data will be plotted on graph.

Elaborate: Students will look for a relationship between time and distance travelled and will make predictions based on their graphs.

Record: Activity Page, Graph

Reflect: http://goo.gl/forms/RF0pmWerPG

Deepening: Students will create a “world” in Alice to demonstrate the time/distance relationship they observed.