Unit 9: Graphical Interface	Estimate Unit Length: 1-2 weeks
Course Code/Course Title: Robotics 1	Date Created: 7/16/2018

Students will understand

- Graphical user interfaces and their use with programming of the robot.
- Describe data types, variables, and logic as it relates to programming.
- Communicate with clarity and precision.
- Build a design and programming journal for each project.

Essential Questions: How does science and Biology relate to me?

- What is Graphical Interface?
- How is Graphical Interface used?
- Where is the utilization of graphical user interface most appropriate when compared to other programming languages?

Sub-Unit Components/Sub-Headings/Objectives

5 to							
Programming Language	Data Types	Data Variables					

Knowledge—Students will know...

List and describe the different programming languages.

Describe data types, variables, and logic as it relates to programming.

Communicate with clarity and precision.

Build a design and programming journal for each project.

Standards Assessments/Evidence

(HS-ETS1-1) Analyze complex real-world problems by specifying criteria and constraints for successful solutions.

(HS-ETS1-4) Use mathematical models and/or computer simulations to predict the effects of a design solution on systems and/or the interactions between systems.

Closed –Ended Selected Response (Optional)

- Multiple Choice
- True/False
- Matching

Open-Ended Constructed Response (Required)

- Short Answer
- Visual Representation (Web, Concept Map, Flow Chart, Graph / Table, Picture)

Products (Optional)

• Log/Journal

Student Self-Assessment (Required)

- Teacher-Made Prompts for Reflection
- Bell-Ringers
- Discussion (Whole-Class or Small Group)
- Self Evaluation

Peer Evaluation (Required)

Robotics 1 Unit Plan

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Reading and Writing Standards (except for English/Language Arts courses)

RST.11-12.7 - Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem. (HS-ETS1-1), (HS-ETS1-3)

RST.11-12.8 - Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information. (HS-ETS1-1), (HS-ETS1-3)

RST.11-12.9 - Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible. (HS-ETS1-1), (HS-ETS1-3)

Instructional Resources/Materials

- Graphical User Interface (GUI)
- Computer