

Unit 8: Intelligent Applications	Estimate Unit Length: 1-2 weeks
Course Code/Course Title: Robotics 1	Date Created: 7/16/2018

<p><b>Students will understand</b></p> <ul style="list-style-type: none"> <li>• Draw the design of the robot, including wire diagram.</li> <li>• Communicate with clarity and precision.</li> <li>• Build a design and programming journal for each project.</li> </ul>	<p><b>Essential Questions: How does science and Biology relate to me?</b></p> <ul style="list-style-type: none"> <li>• How are “Intelligent Applications” applicable to design and functionality?</li> <li>• How does Intelligent Applications affect the design and functionality of a robot?</li> </ul>
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**Sub-Unit Components/Sub-Headings/Objectives**

Robot Design	Wire Diagrams	Design Journal	Programming Journal		
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**Knowledge—Students will know...**

<p>How to draw and design a robot including the wire diagrams required for robotic function.          Communicate with clarity and precision related to robotics design.          Build and design a programming journal for each project</p>
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**Standards**

**Assessments/Evidence**

<p>(HS-ETS1-1) Analyze complex real-world problems by specifying criteria and constraints for successful solutions.          (HS-ETS1-3) Evaluate a solution to a complex real-world problem, based on scientific knowledge, student-generated sources of evidence, prioritized criteria, and tradeoff considerations.</p>	<p>Closed –Ended Selected Response (Optional)</p> <ul style="list-style-type: none"> <li>• Multiple Choice</li> <li>• True/False</li> <li>• Matching</li> </ul> <p>Open-Ended Constructed Response (Required)</p> <ul style="list-style-type: none"> <li>• Short Answer</li> <li>• Visual Representation (Web, Concept Map, Flow Chart, Graph / Table, Picture)</li> </ul> <p>Products (Required)</p> <ul style="list-style-type: none"> <li>• Log/Journal</li> </ul> <p>Student Self-Assessment (Required)</p> <ul style="list-style-type: none"> <li>• Teacher-Made Prompts for Reflection</li> <li>• Bell-Ringers</li> <li>• Discussion (Whole-Class or Small Group)</li> <li>• Self Evaluation</li> </ul> <p>Peer Evaluation (Required)</p>
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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,
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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**

- Computer
- Software
- Navigational System