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| **Learning**  **Outcomes** | * TLW learn about Boe-Bot inputs and outputs. * TLW become familiar with light emitting diodes. * TLW gain an understanding of the whisker circuit. * TLW make a circuit that lights an LED. * TLW use whisker input to create the output of lighting an LED * TLW make the LED blink in an SOS pattern using whisker input. |

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| **Materials List** | | |
| * Boe-Bot * Laptop/computer | * PBasic Stamp Program * USB cable & adapter | * LED * 220Ω resistor * Jumper wires |

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| **Lesson**  **Summary** | * Discuss Boe-Bot inputs and outputs. * Discuss whisker circuit. * Discuss LEDs and the significance of diodes. * Have the students build a circuit that turns on an LED. * Have the students make the Boe-Bot output a message where the LED is blinking in Morse code (SOS) using the whisker input. |

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| **Homework** |  |

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| **Resources** | Text Reference: |
| * Robotics with the Boe-Bot (pg 165-177) |

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| **Relevant Standards** | |
| GLEs |  |
| Guiding  Questions |  |