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| **Learning**  **Outcomes** | * TLW revisit the whisker circuit * TLW apply basic programming to use the whisker circuit for navigation. |

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| **Materials List** | | |
| * Boe-Bot * Laptop/computer * PBasic Stamp Program * USB cable & adapter | * 2-Whisker Wires * 2-7/8” screws * 2-1/2” spacers * Nylon Washers * 1-jumper wire | * 2-3-pin Headers * 2- 220Ω Resistors * 2-10kΩ Resistors * Maze * Stopwatch |

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| **Lesson**  **Summary** | * Discuss whisker circuit as a tool for navigation (IF…Then Command). * Have students build whisker circuit. * Have students program their Boe-Bots to navigate using the whiskers (individually or in pairs). * Hold a competition over the last 20 minutes of class to see which team most efficiently navigates through the maze using whisker circuits. |

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| **Homework** |  |

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| **Resources** | Text Reference: |
| * Robotics with the Boe-Bot (pg. 166-167) |

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