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| **Learning**  **Outcomes** | * TLW apply their knowledge of this circuit to make the Boe-Bot navigate over a line. * TLW apply knowledge of photoresistors, capacitors, and programming skills to navigate Boe-Bot through a course made of black electrical tape in a competition atmosphere using two photoresistors (if time permits 1 photoresitor). |

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| **Materials List** | | |
| * Boe-Bot * Laptop/computer * PBasic Stamp Program * USB cable & adapter | * Jumper wires * Navigation Course * White Poster Board * Black Electrical Tape | * 2-22oΩ Resistor * 2-0.01µF Capacitors * 2-Extended Photoresistors |

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| **Lesson**  **Summary** | * Students will continue to program their Boe-Bots to follow a line of electrical tape. * Students will compete to see whose program most efficiently follows a set course of black electrical tape. * If time permits, have students work on making the Boe-Bot follow a line of electrical tape using only one photoresistor. * Have students (individually or in pairs) navigate Boe-Bot through course using a single photoresistor * Have students compete against each other for the most efficient navigation |

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| **Homework** |  |

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| **Resources** | Text Reference: |
| * Robotics with the Boe-Bot (pg. 193-229) |

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