

Unit 3 Control Systems, Lesson 3.1 Machine Control (VEX) Lesson Plan

COURSE:

Principles Of Engineering (Honors)

TEACHER:

Jason D. Redd

DURATION:

30 Days

STANDARDS:

This course connects to standards in the following:

- Common Core State Standards for English Language Arts Anchor Standards
- Common Core Standards for Mathematics
- Next Generation Science Standards
- Standards for Technological and Engineering Literacy

PLTW FRAMEWORK:

Provided by Project Lead the Way (PLTW), the PLTW Framework provides an overview of the levels of understanding that each student will build upon throughout the lesson/unit. It includes: Established Goals, Transfer, Understandings, Knowledge and Skills, and Essential Questions. The most fundamental level of learning is defined by course Knowledge and Skills statements. Each Knowledge and Skills statement reflects content. Students apply Knowledge and Skills to

- Machines can use open-loop or closed-loop control systems; closed-loop control systems can use digital and/or analog sensor feedback to make decisions.
- Complex algorithms are created by decomposing the algorithm into simple pieces, and complex machine behavior can similarly be decomposed into simple component behavior.
- Documentation - in the form of pseudocode, comments, and other documentation - c8.33 e. TJETb.0000092 0 62

EQUIPMENT / MATERIALS / RESOURCES:

Students will need or utilize:

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| ☒ Assignment Handouts / Instructions | ☒ Online Resources |
| ☐ CAD Software | ☒ Other Software |
| ☒ Classroom Materials / Equipment | ☒ Schoology |
| ☒ Computer / Device | ☐ |
| ☒ Internet Access | |
| ☒ Microsoft Office Software | |

