

Team Members:

_____, _____, _____,
_____, _____

Design a Timing Device Challenge Project

Fred Leger, Littleton High School

You and two to four friends have been taken prisoner in a foreign country. You are going to try to escape from the prison. In order to escape, you must time the movement of the guards exactly! You have to design a method of timing 3 minutes – the time it takes the guards to change posts – so you can make your break.

Materials (available in your cell):

String (shoe laces)

Paper

Soap (one bar)

Small Ball

Water Bottle (water is available)

Glue (Oatmeal glue (5 extra points) or you can use real glue (2 extra points), or hot glue)

Coins

2 decks of playing cards

Dominos

3 **simple** items you were able to smuggled in, no clocks, watches, computers. List them below

_____, _____, _____
(These could be simple items from my room not necessarily brought from your home.)

Object:

Using the above listed materials, (the more items you use, the higher your grade will be for the project), design a way of timing 3 minutes exactly as possible. You may use a clock/watch to check the accuracy of your device; however, no clock/watch may be used in the device itself when we watch your solution.

Grading:

You must use more than one original list items to achieve a high grade.

_____ 100 for five objects _____ 90 for four _____ 80 for three objects _____ 70 for two objects,
_____ 60 for one object, _____ 40 if you do not use anything from the list and use only what you smuggled in.

Timing Grade:

+/- 0-5 seconds 100, +/- 6-10 seconds 95, +/- 11-15 seconds 90, +/- 16-20 seconds 89, +/- 21-25 seconds 80, +/- 26-30 seconds 79, +/- 31-35 seconds 75, +/- 36-40 seconds 70, +/- 41-45 seconds 65, +/- 46-50 seconds 60, +/- 55 and up seconds 0.

Total Project Grade:

_____ / 200