

IE-341

Section 1, CRN: 30512/513/514

Section 2, CRN: 30515/516/517

Section 3, CRN: 38299/300/301

Section 4, CRN: 65886/887/888

First Semester 1438-39 H (Fall-2017) – 3(2,1,2)
“HUMAN FACTORS ENGINEERING”

Sunday, October 08, 2017 (18/01/1439H)

Tutorial 2: Fitts' Law

Name:	Student Number: 4	Section: Mon@8/ Mon@10 / Tu / Wed
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You are required to run the Fitts' Law exercise available in the following link: <http://fww.few.vu.nl/hci/interactive/fitts/>, then answer the following questions. Note, it's ok to work on this exercise as a group (2-3 students).

1. First, run the Fitts' Law exercise using a regular (two-button) mouse. Note, make sure you run the experiment using the dominant hand. What is the value of the constant a in Fitts' Law?
2. Now, rerun the experiment using another control device, or by also using the mouse, but now you should point at the target instead of clicking on it.
 - a. Should the value of a in Fitts' Law ever change? why/why not? (prove your answer you the Fitts' Law formula)
 - b. The *index of difficulty* (ID) is usually given by the following expression:

$$ID = \log_2 \left(\frac{2D}{W} + 1 \right)$$

Can you show how this expression relates to Fitts' Law? Hint, use figure 9-10 from your textbook to assist you with this answer.

- c. Demonstrate the explanation you gave in part b. (above) using the run you produced from the Fitts' Law exercise.