# TIM 105 MOT I: Homework 2

# (Problem Solving, Functional Maps, Strategy)

**Reading:** Ulrich & Eppinger, “PDD”, Chapters 1-4; class handouts. (Work on the homework problems and do the readings *concurrently*.)

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**Homework Problems (Due Thursday, 8 October, 2015):**

Before working on the readings and problems develop a plan and time-schedule for producing “high-quality” homework (your product) in an efficient manner and on time.

For each problem proceed in the following structured manner: define the problem; plan the treatment of the problem; execute the plan; draw conclusions.

1. **Disk Drive Industry:** Read the disk drive industry handout. Carefully study the functional maps in Fig 1.3, 1.4, 1.5, and 1.7. For each map answer the following: (1) what is the meaning and significance (value) of the map? (2) how would a disk drive company use this map? and (3) what high-level conclusions can be drawn from the map?.

Using the appropriate functional map attempt to predict the nominal price that a disk drive manufacturer would charge (in “1982 dollars”) for 1MB of memory in the year 2015? Convert the “1982 dollars” price to an equivalent “2015 dollars” price, and attempt to compare your result against some actual manufacturer’s price.

1. **Intel**: Read the Intel Case Study and then work on the following problems. Map and analyze Intel’s industry/market landscape using Porter’s five (six) forces model. Be sure to clearly explain your approach and results. Draw appropriate conclusions. What are the key relationships between (the players involved in) each “force” of the business landscape? (E.g., how did Intel deal with competitors, etc.) Provide your own assessment of Intel’s technology strategy from the company’s inception (in 1968) to 1997. How have Intel’s technology strategy, product market strategy, and developmental goals changed from its inception to 1997? What were the key driving forces that triggered these changes? (This part will require the creation and use of the appropriate functional maps).

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**Project Deliverables Due on Tuesday, 13 October, 2015**

**Project Proposal**:

* Create a medium-sized technology company context for your product. (Suggestion: Find an existing company where your product idea might be developed. Then create your version of this company.)
* Briefly describe the new product/service idea that your product development team plans to design and develop over the next 9 weeks.
* Provide a “time-phased” project plan for these 9 weeks.

***Please meet with the instructor to discuss your completed project proposal during his office hours (3:30-6:30 PM) on Tuesday, 6 October, 2015.***

**Preliminary Phase 1 Tasks:**

* Define a set of business goals, a proposed technology strategy, and a proposed marketing strategy, and development goals for the company.
* Perform a preliminary market sizing (revenue map) and market need analysis for your proposed technology/product line.
* Do a preliminary competitive analysis of industry/market landscape for your company’s product/technology: identify competitors, suppliers, buyers, etc. Are you a new entrant? Are you creating a substitute product? Etc.