

# Big Picture of Object Oriented Programming

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要做一台投影機，需要哪些零件？

# 要做一個CPU，需要哪些零件？

# 要做一個Facebook，需要哪些零件？

系統  $\Rightarrow$  零件：  
化整爲零 & 模組  
化！

# 有好的模組才有好的系統

- easy to debug
- make the goal clear
- divide and conquer
- easy to maintain/manage
- easy to modify/update
- easy to reuse

模組化：節省很多未來的時間和心力！

# 程式輸入員v.s. 程式設計師

- 輸入員 : basic language skill
- 設計師 : good design skill + good language skill
  - what's the purpose of the program?
  - what's the specialty of the language?
  - what's the current need of the program?
  - what's the future need of the program?

設計師：

願意用**現在的**專業付出，來節省**未來的**時間和心力！

不要只想寫出  
用後即丟的程式

# Noodle-Oriented Programming

- whatever ingredients you put in, edible noodles are good noodles
- too salty? add more water
- no vegetables? get whatever is in your refrigerator
- **spaghetti code**: a program flow that looks like a bowl of spaghetti, i.e. twisted and tangled

NOP: generate whatever code  
that works for now

# Applications of Noodle-Oriented Programming