Answer the following questions from the end of Chapter 1.

Design Process:
1. Discuss the differences between “requirements” and “specifications” in embedded system design.
2. Write a set of requirements for a small, low-cost, minimally-featured MP3 music player.
3. From your requirements, derive a system specification for the MP3 player.
4. Discuss the difference between top-down and bottom-up design approaches, as might be used to design the MP3 player.
5. Considering both nonrecurring and recurring engineering costs, discuss the effect on overall project cost of using an off-the-shelf chip to decode MP3 music files, as opposed to implementing an MP3 decoding algorithm in software on an ARM microcontroller.

UML Diagrams: (These questions are from the end of Chapter 1 in the Wolf textbook.)
   Q1-16. (UML State Diagram)   Q1-21. (UML State Diagram)
   Q1-17, Part b. (UML Sequence Diagram)           Q1-22, Q1-23. (UML class and collaboration diagrams)
   These both refer to a microwave oven, so they are related.