Design Task:

Design a service cart used to serve foods and beverages in a commercial jet airplane and perform necessary analysis of your design with CATIA v5.

Design Specifications:

• The service cart should be stable;

• The service cart should be light weight and yet durable;

• The service cart should be able to carry sufficient foods (hot and cold) and beverages including café, juice, tea, soft and alcoholic drinks), etc.;

• The service cart should be easy to operate, safe to use, and cost efficient.

FIG. 1 An example from: http://www.wipo.int/pctdb/en/wo.jsp?IA=US2007026189&WO=2008079345&DISPLAY=STATUS
Deliverables and Evaluations:

• An assembly drawing of the cart designed: 40%

• Detail drawings of three non-standard parts
  (multiviews with full dimensions): 20%

• A 3D solid model: 10%

• FEA and its report: 20%

• Creativity 10%

Total: 100%

Note: The documentation of this design project should be part of your online design portfolio. A guideline and format for the online design portfolio will be given in class.