Cirrus Engineering, Inc. is contemplating development of a machine that would facilitate human running or walking for a variety of possible end use applications, including:

- 'In place' exercise
- Self powered locomotion

Following development, Cirrus desires to introduce the new machine into the marketplace in early 2005, and realize no less than $5 million NPV over a five year period.

Design a Resistance-Momentum (R/M) Sub System* for the Home Use, In-Place Exercise Machine Designed in MEEG 301 that:

- Provides the user with a pleasing sense of uniform running motion with momentum;
- Has no unsafe operating conditions;
- Has selectable levels of resistance;
- Does not require external power to operate;
- Requires minimal maintenance/Repair;
- Is consistent with a low cost production system

* Product & Process