Ethical problems in engineering:

- 1. Quality control in design and production. Economic motivation: need for uniformity, minumum quality, and prestige. Moral motivation: honesty. Limit: maximizing quality leads to high price, hence to elitism (e.g. Rolls Royce).
- 2. <u>Human engineering</u> or internal social impact. Economic motivation: minimization of costs and optimization of personnel satisfaction. Moral motivation: personnel welfare.
- 3. <u>Societal impact</u>: minimize undesirable social changes. Economic motivation: social disruption leads to economic disturbances. Moral motivation: minimize suffering of others.

4. Environmental impact. Long term economic motivation: conservation of resources. Moral motivation: respect for public property (air, water, natural beauty, etc.).

5. Risk protection ashel see card