

Vehicle Design- Exercise 1

Read Pages 1-59 in the H-Point Book. Do Exercise 1- Setting the Fundamental Objectives. Create and share this document in your Google Drive Folder. Name your file EX 1 FUNDAMENTAL OBJECTIVES- STUDENT FIRST & LAST NAME and "share" it with me granting me permission to edit and make comments.

However, before you begin- view the three links given to you. For this vehicle design you will rethink what a vehicle is.

<http://www.icoconutgrove.com/shop/car2go-redefining-transportation-2/>

<http://www.youtube.com/watch?v=C6EFJ3862Ys>

http://www.greencarreports.com/news/1081808_new-cars-must-be-green-say-young-buyers-in-study

Exercise I - SETTING FUNCTIONAL OBJECTIVES

Set out some clear functional objectives for the three entities: customers, brand and market environment.

CUSTOMERS:

- Purpose of the vehicle
- Number of occupants
- Type of occupants (gender, age, nationality, physical disabilities, etc.)
- Performance and capability expectations (acceleration, top speed, handling, off-road capability, GVW, towing capacity)
- Purchase cost & cost of ownership (economical, luxurious, exotic, practical)
- Image (modern, retro, prestigious, ecological, safe, bold, high-performance)

MANUFACTURER / BRAND:

- Vehicle position in the brand portfolio
- Investment & manufacturing costs
- Annual sales volumes (1–100; 100–5,000; 5000–50,000; 50,000–100,000; 100,000–1,000,000)
- Marketing strategy (traditional dealerships, Internet, loss leader, halo, concept)
- Technology (traditional, advanced)

MARKET / ENVIRONMENT:

- Infrastructure, terrain & climate
- Size limitations (length, width, height, tire size, engine size & output)
- Legislation (safety, emissions, fuel consumption, lighting)
- Crashworthiness (front & side impact, rollover, low-speed impact)
- Consumer advocate groups (JD Power, MSN Autos, EuroNCAP, Insurance Institute for Highway Safety, *Consumer Reports*)