

DESIGN GUIDELINES FOR OUR PLANET & US

These guidelines are for everybody involved in creative endeavour; for small articles or large projects.
They are not rules but considerations that will help us make better decisions for our future.

PLANNING THE PROJECT

- Will the product or project over its full life cycle leave our planet in better condition ?
- Will our environment, our plants, our animals, present and future humans benefit because of this project ?
- Does the project treat all peoples and animals with compassion ?
- Does the project warrant every form of risk involved ?
- During EACH of the intended phases of

Material acquisition
Construction
Operation
Dismantling
Component & material disposal

- Is the lowest energy method involved ?
- Can renewable energy sources be used ?
- Can existing materials or equipment be used ?
- Have all effects & by-products been considered
 - chemical - biological - temperature - environmental -
 - radioactive - safety - social ?
- Have undesirable effects been minimized ?
- Are all precautions in place ?
- Is the community informed of all risks & implications ?

DESIGN

In reaching a design solution for the project objectives, the following considerations will help reduce waste, energy, maintenance, unreliability & cost. Each small improvement will make your project or product better for our planet.

Minimize Because

Parts	- lower cost & less to go wrong
Manufacturing operations	- lower cost & less to go wrong
Assembly operations	- lower cost & less to go wrong
Skills needed	- fewer mistakes, less waste, lower cost
Tools needed	- lower cost, more easily serviceable
Special materials	- lower cost, more easily repairable
Quantity of material	- better use of resources, less weight
Size	- more cheaply transported & handled
Energy needed overall	- lower cost, environmentally better
Wastage	- lower cost, environmentally better

Maximize Because

Functions per part	- one part doing two jobs will save parts
Features of manufacture	- eg casting may enable a form creation such as a handle without extra parts
Parts per fixing	- fewer parts, lower cost, more reliable
Batch size	- set-up costs reduced
Symmetry	- larger batch sizes, easier assembly
Recycled material usage	- less waste, environmentally better
Energy recovery	- less waste, environmentally better
Part life	- less waste, environmentally better
Part recovery & re-use	- less waste, environmentally better

