

# Industrial design

is a process during which a designer helps a client to decide what consumer goods will look like and how it would work.

An Industrial designer uses the **design brief** - specifications, given by the client - to design consumer goods.

**Research** - Use **specifications** from the design brief to find out what is needed and what already exists.

**Design** – Make detailed **Presentation and Design Drawings** to show ideas.

**Manufacture** – Check product to design specifications.

**Evaluation** – Test product against Presentation and Design Drawings and **design factors**.

# TECHNOLOGICAL PROCESS

## 1. **Identify a need.**

Make a list of the things that make the product work, as well as, the aspects you do not like about it.

## RESEARCH

## 2. **Put ideas on paper.**

Then make a drawing of what it looks like, and add your suggestions for improvements to be made on the drawing.

## DESIGN

## 3. **Make a prototype.**

Drawings from all views and angles will help the manufacturer to correctly make the product.

## MANUFACTURE

## 4. **Test it for problems.**

A product is tested and redesigned until it is ready for mass production.

## EVALUATION

# DESIGN BRIEF



**A pen which can write in black, green, purple and red erasable ink.**

**Refills should last long be easy to replace.**

**It must be portable and light with a clip to fit in my pocket.**

# RESEARCH



**Simple, cheap, can see ink level**

**Gets slippery in hand, cartridge difficult to grip and pull out**



**Simple, cheap, can see ink level, textured grip, clip attached**

**Clicker breaks off inside, nib breaks barrel tip, non-refillable**



**Simple, cheap**

**Cannot see ink level, gets slippery in hand**



**Cheap, can see ink level, textured grip, back cap unscrews to refill**

**Caps get lost, metal tip splits plastic barrel**



**Soft grip, barrel unscrews into equal parts, stronger materials**

**Expensive**

**Durable, Available**  
**Expensive**

# PROTOTYPE



# EVALUATION

What does it do?

**(FUNCTIONALITY)**

Is it obvious what it is for?

Does it work as you expect?

Does it look good?

**(AESTHETICS)**

Does it feel pleasant to touch?

Does it come in more colours?

Who will use it?

**(TARGET MARKET)**

Could anyone use it, regardless of ability or body type?

Does it require assembly?

Is it comfortable to use?

**(ERGONOMICS)**

Does it need batteries or recharging often?

Is it made from suitable materials?

Will it last as long as it needs to? **(DURABILITY)**

Does it have small parts which can get lost or broken?

Will it need servicing or upgrades often?

**(AFFORDABILITY)**

Can the users afford the product?

Is it safe?

**(SAFETY)**

Can I read (understand) the manual?

What would happen if it is used incorrectly?