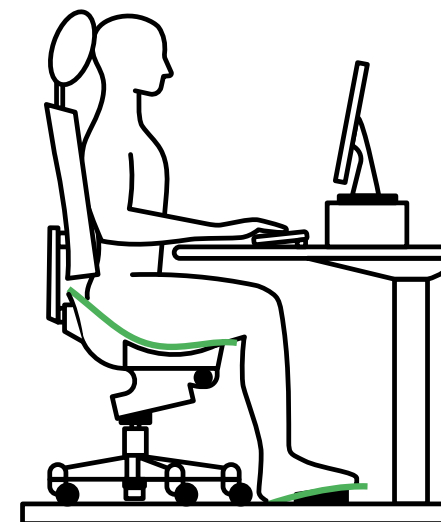


Big ideas sheets

1. Ergonomics

Ergonomics originated in the work place.

In more general design, ergonomics concerns the comfortable use of an object, service or space (convenience, **handling**, proper grip of a handle, ease of navigation on a website etc.).

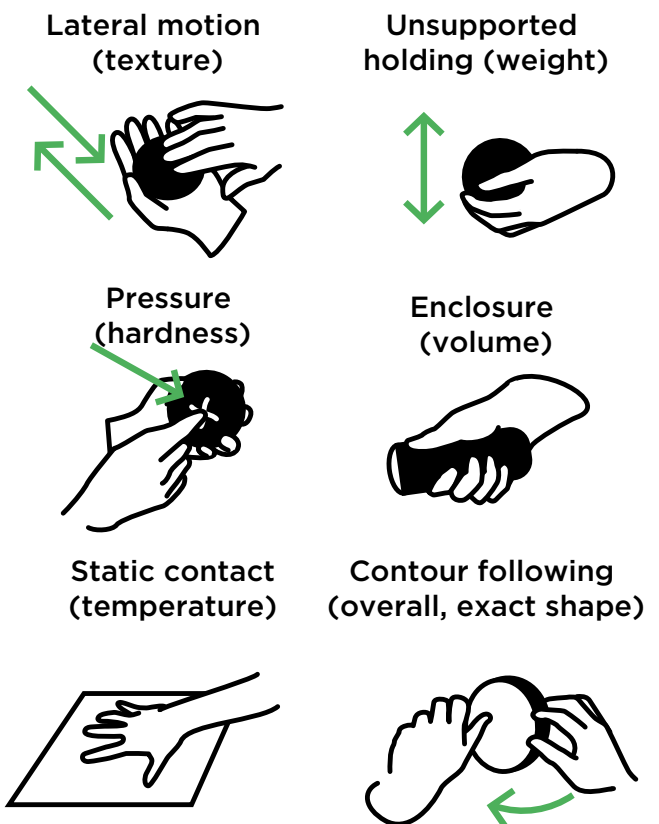


SOURCE [14]

2. Haptics

Haptics refers to the science of touch, just as optics refers to sight and acoustics to sound.

There are six processes of manual exploration:

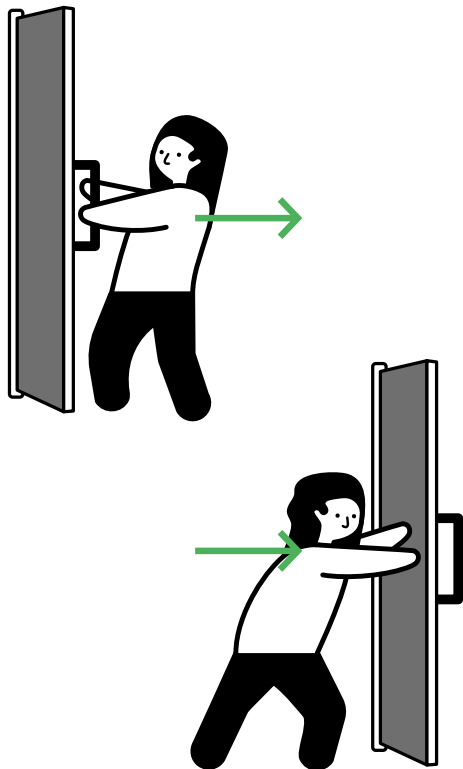


SOURCE [15]

3. Affordance

Affordance is about “all the action possibilities of an object” and, more specifically, the intuitive understanding of forms and their functions.

Some shapes naturally induce certain gestures. The more affording an object is, the less explanation it will need and the greater the likelihood that it will be used correctly the first time.



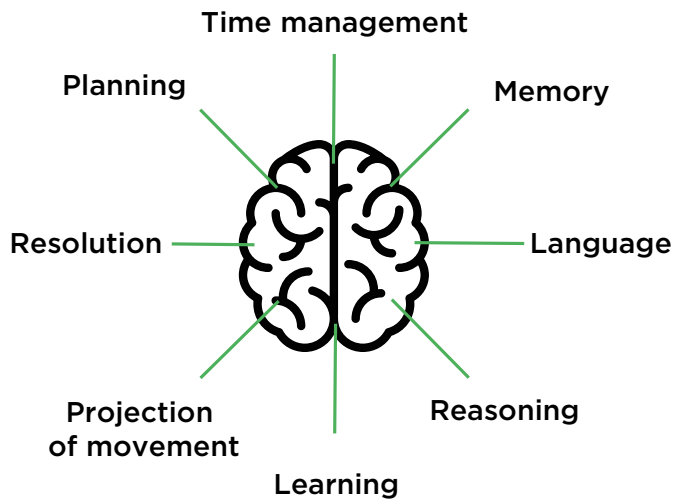
SOURCE [16]

4. Cognitive processes

Acquiring awareness and knowledge are cognitive processes.

Cognitive processes and emotional processes mutually contrast with and influence one another.

Cognition deals, for example, with processing information:

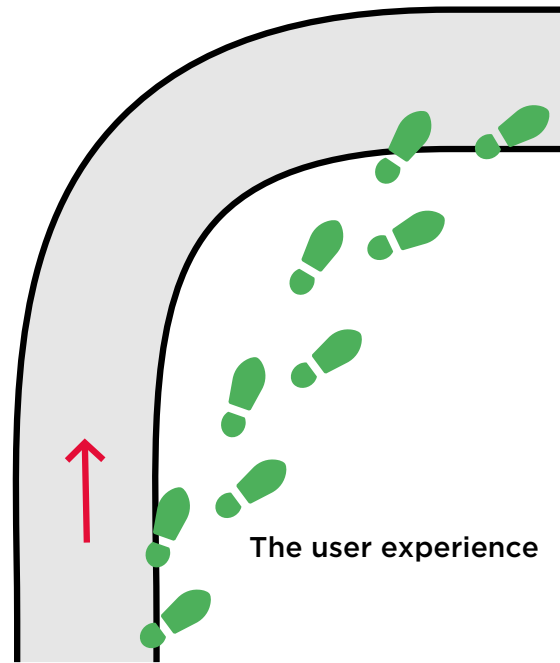


SOURCE [17]

5. The user experience

The objective is for the design to coincide as much as possible with the experience the user wants to have. The user’s experience depends on their perception of all the **interactions** experienced throughout the **user pathway**.

This pathway extends well beyond the use of the object at a precise moment: the term can be applied, for example, from the moment the object is purchased until it is repaired after it has been in use for several years.



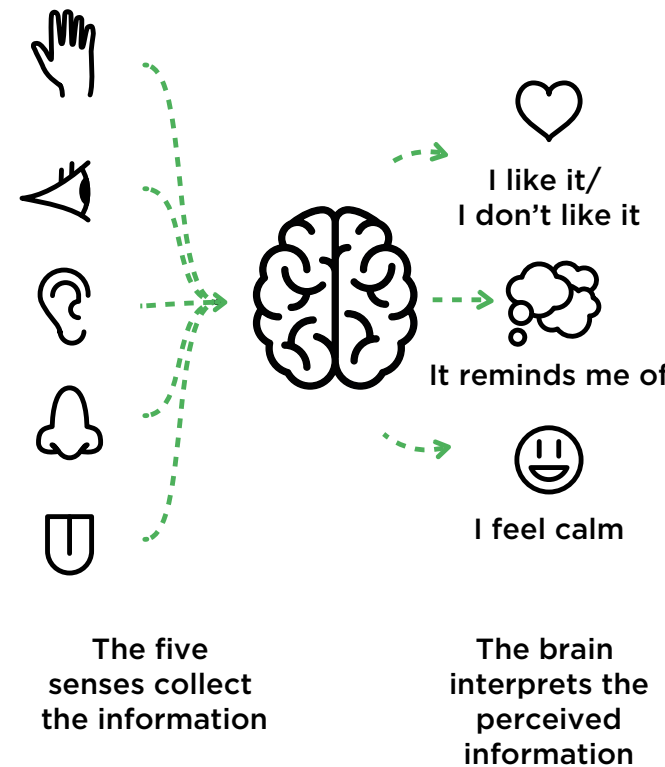
SOURCE [18]

6. Perception

Perception is a process with two stages:

- The five senses absorb information and signs from the environment.
- Then the brain interprets this data through emotional and cognitive reactions (based on culture, past experiences, logic etc.).

For example, a car door slamming with a low-pitched noise will generally be perceived as reliable and reassuring. This impression is due to the interpretation of signals as perceived values.



SOURCE [19]

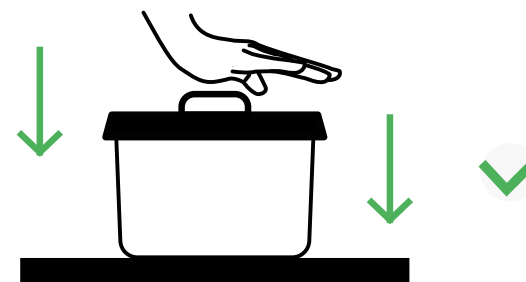
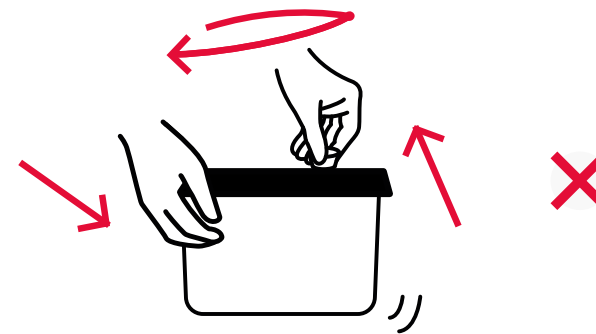
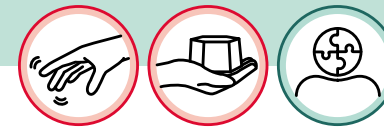
Best design practices sheets



1. Aim for vertical movements

Actions should follow the vertical axis - securing an element in place, for example - so that they only need one hand.

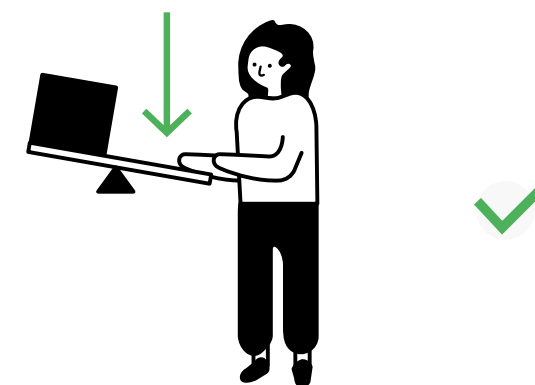
Horizontal actions often require the use of a second hand to stabilise the object.



2. Follow the direction of gravity

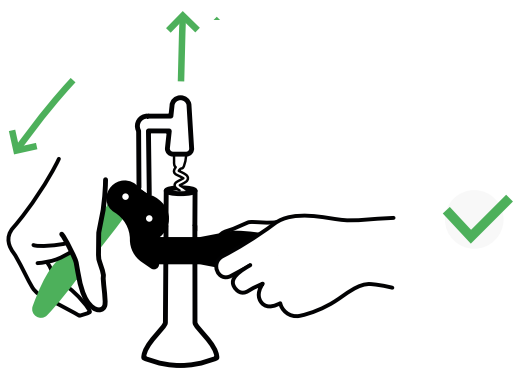
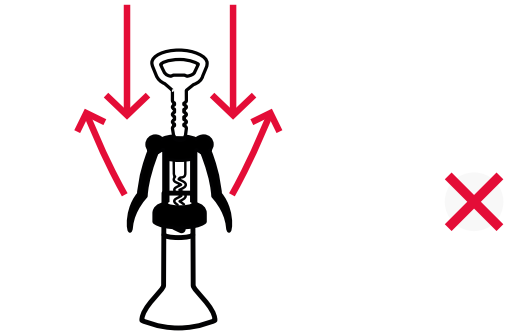
Actions that are carried out from high to low follow the force of gravity and require minimum effort from the user.

On the other hand, movements from low to high require more effort. An element may therefore be hard to fasten in this direction.



3. Aim for single actions

A single motion is required to carry out an action on an object. Carrying out more than one movement at once requires the use of a second hand, synchronisation of movement, precision and **attention**.

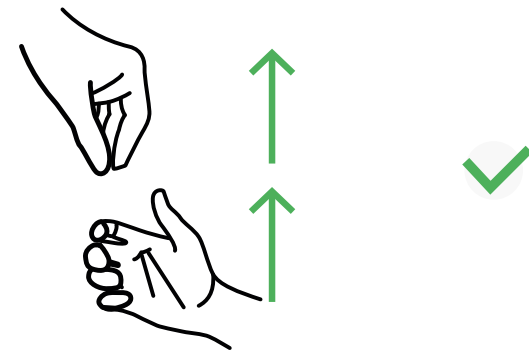
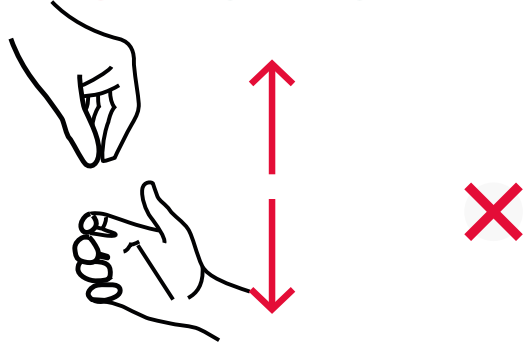


4. Think in a unidirectional way

Complex actions are carried out in the same way and in the same direction.

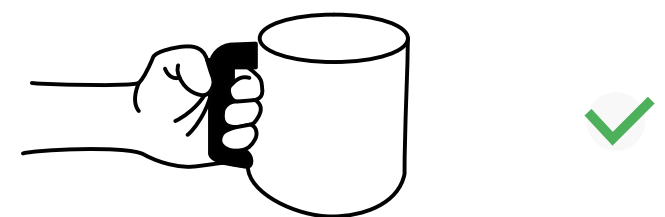
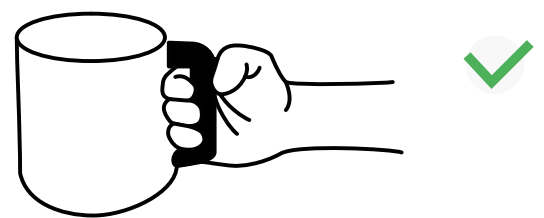
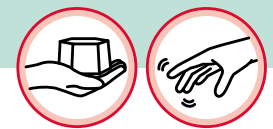
A complex action requires the coordination of several limbs at once, for example both hands.

The comprehension, coordination, **attention** and level of strength and precision required will be easier if the movements follow the same trajectories.



5. Consider left-handed and right-handed users

The action must be possible for both right-handed and left-handed users.

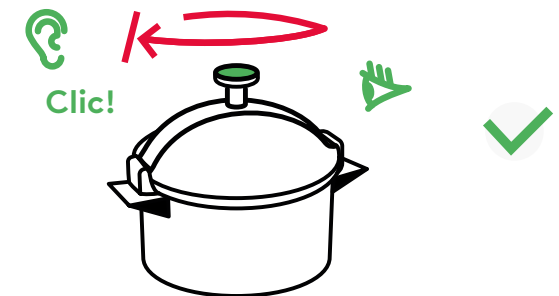
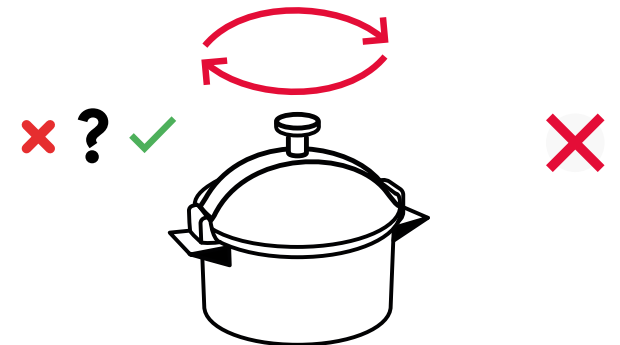
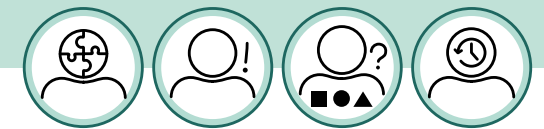


6. Confirm the action with a signal

Each step in an action is confirmed by an audible and visual signal. Particularly in **cases** which are not perceived to be very safe, it is important to reassure the user by confirming that the step has been carried out correctly.

The absence of a confirmation signal can confuse the user and reduce their confidence in their **interaction** with the object.

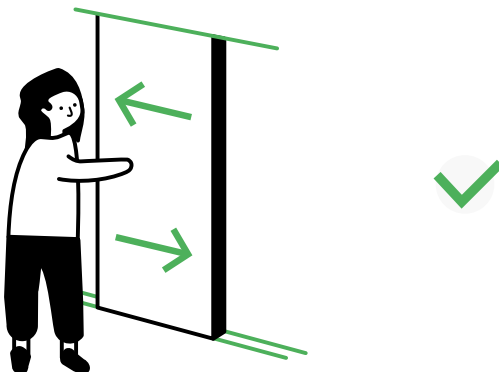
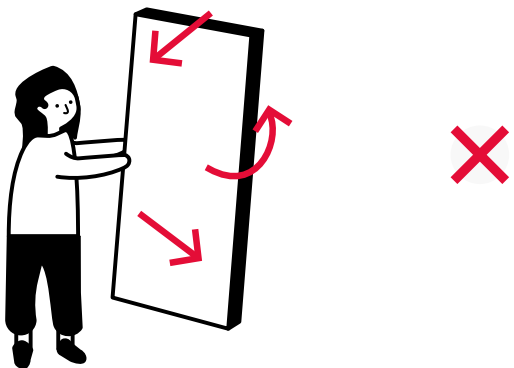
Confirmation through feedback therefore has value in terms of both **usage** and perception.



7. Guide the action

Movements are guided and limited by an element of the design, which prevents any other movements being made in error along other trajectories. For example, the action could be limited to one possible trajectory by a hinge or by sliding along rails.

This guidance counteracts any potential errors in trajectory caused by imprecise movements, shaking, lack of strength, visual impairment or lack of comprehension.



8. Aim for a stationary position

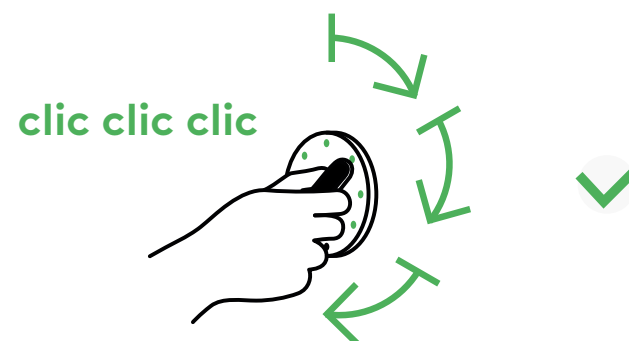
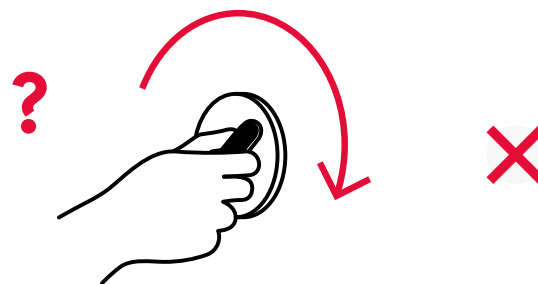
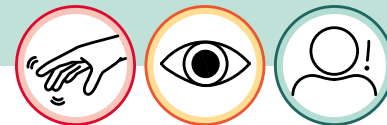
Actions carried out when stationary require minimum effort for the user to move around. So it sometimes makes sense to simplify situations that are traditionally spread out over an area, limiting them to a fixed point to make manipulation easier.



9. Give preference to dials with notches

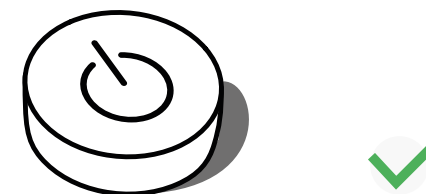
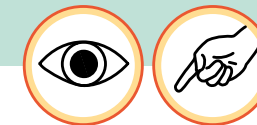
Dials with notches allow users with visual impairments or attention deficit disorders to choose an option by counting the number of notches or remembering a dial position that has already been selected.

An infinite dial does not make it easy to select a precise setting, for people with shaking hands for example, or to select options without an associated audible, touch or visual signal.



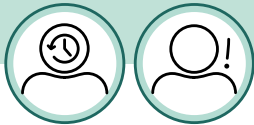
10. Make functional elements stand out

Visible functional elements (buttons, marks for measuring etc.) are easier to make out if they raised.



11. Separate information into blocks

Large amounts of information are structured in blocks to make it easier to process and memorise. These blocks can be classified by type according to function, chronology etc.



Open
Close
Measure
Option 1
Option 2
Maintain the temperature
Switch on
Adjust
Switch off



Open
Close

Measure
Option 1
Option 2

Maintain the temperature
Switch on
Adjust
Switch off



12. Communicate using Easy-to-Read language

Information given in writing or orally must follow the Easy-to-Read guidelines so that it can be understood, assimilated and memorised by everyone. These rules are shared by a number of associations. The Easy-to-Read guidelines are available in the appendix under source [20].

These guidelines tell you, for example, not to use serif fonts, not to write in italics and to formulate simple sentences.



YOU WILL RECEIVE A PARCEL.
THIS WILL BE SENT
BY POST ON 12/12/22



Your parcel will
be sent by post
on 12 December 2022.



13. Optimise the readability of contrast levels and colours

The WCAG and RGAA guidelines present three levels of accessibility (A, AA et AAA). The AA (double A) and AAA (triple A) ratings specify minimum levels of contrast between text colour and background colour to improve the readability of the content.

There are websites and free applications available to check the visual accessibility of different levels of contrast between background colour and text colour.



DIFFICULT TO READ

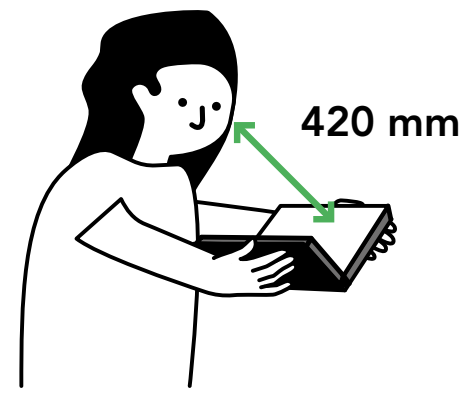


EASY TO READ



14. Pay attention to the font size

For optimum readability, the font size is calculated as the reading distance divided by 30.

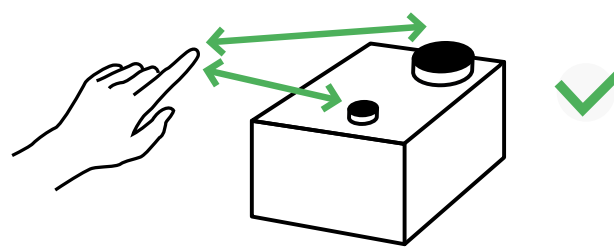
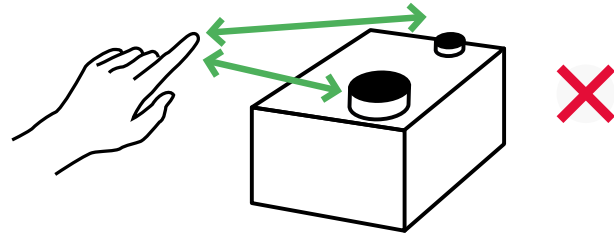
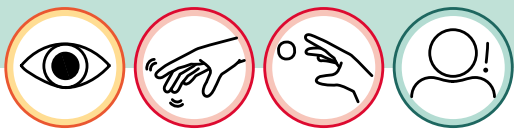


$$\frac{420 \text{ mm}}{30} = 14 \text{ pt}$$

15. Make things easier to reach

The time required to reach a target depends on its size and how far away it is. For example, the further away the button, the larger its diameter. The closer the button, the smaller its diameter can be.

The quicker the movement and the smaller the target, the higher the error rate will be. There is a compromise between speed of reach and precision. To find out more, take a look at [Fitts's law](#).



16. Important information

Important information and elements are highlighted through sensory differentiation. For example, a word in a text can be shown in bold. The texture of a "start" button can be identified by touch.

For written information, refer to the [Easy-to-Read](#) guidelines. For example, using bold to highlight a word is recommended. Highlighting a word by underlining it, however, is not advisable.



Emphasising words by underlining or highlighting them is not recommended

Emphasising **important** words in **bold** is recommended

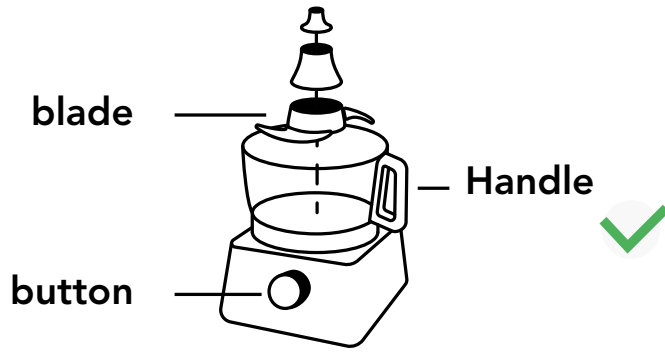
17. Illustrate text

Pictures are easier to remember than words. Written information is easier to understand and remember if it is supported by a figurative illustration such as a drawing, photo or pictogram.



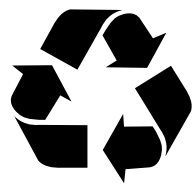
User manual:

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duiis dolore te feugait nulla facilisi.



18. Figurative illustration

Figurative pictograms are the most easily recognisable. Schematic or abstract pictograms require more knowledge and thought.



The "recycling" logo is an abstract pictogram. The user has to recognise the symbol to be able to understand its meaning.



The "waste disposal" logo is an illustrative pictogram. The user will easily recognise the action of throwing a piece of paper in the bin.

19. Avoid cognitive interference

Messages represented by contradictory information slow down the mental pathways for processing and assimilating information. The meaning of the information must match the perception of its mental representation (style, colour etc.) so that it can be understood without any interference. Cultural perception plays a key role in the significance of a colour, material or message. To find out more, look up the ideas behind the **Stroop effect** and **proactive and retroactive interference**.

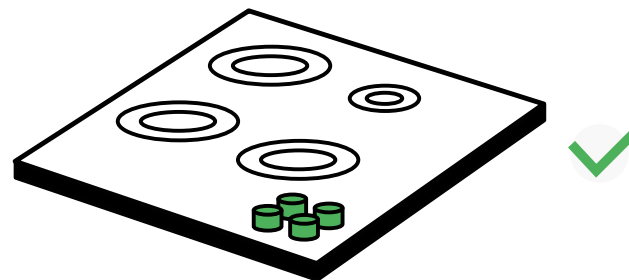
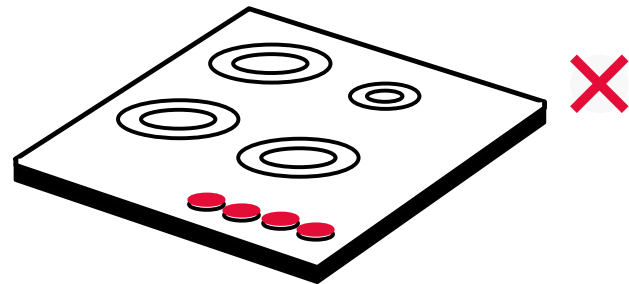


STOP! **GO.** ✗

STOP. **GO!** ✓

20. Arrange controls in a similar way

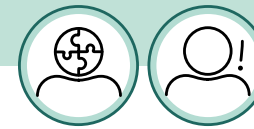
Controls and the elements of the object they control are arranged in a similar way.



21. Margin of error

The margin of error for each use is taken into account and corrections are possible. It is important that potential usage errors are considered from the design stage or identified during **usage** tests.

The user may deliberately or involuntarily **use** an object incorrectly. The device is designed to take this margin of error into account by allowing the user to go back, blocking any unintended usage etc.



Go Back



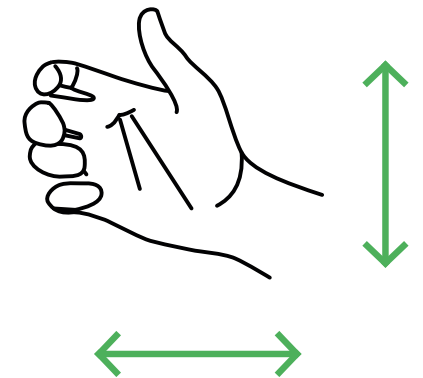
Confirm

22. Follow high/low, left/right axes

Horizontal or vertical actions can be carried out with more precision than diagonal or rotating actions.

Actions that follow orthogonal trajectories are easier for people with shaking hands and allow greater precision and coordination.

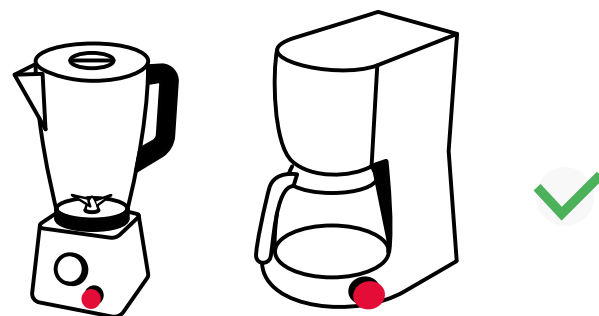
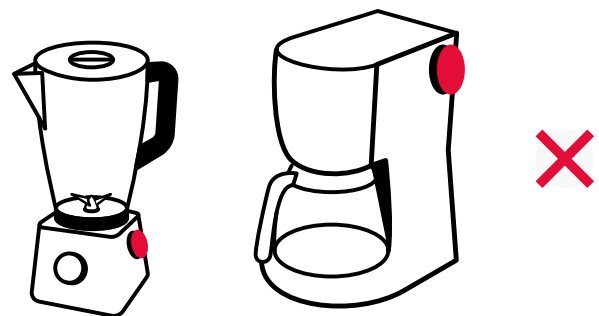
In addition, people with impaired vision will intuitively read an object following an orthogonal approach.



23. Adopt a standard reading direction

The same functional elements can be positioned in the same place for all objects in a range, so that users do not have to look for them and learn where they are each time they come across a new object.

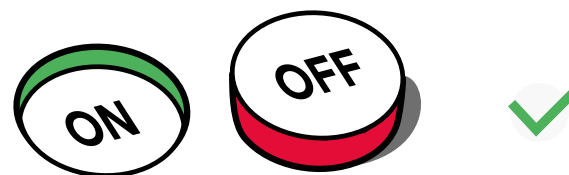
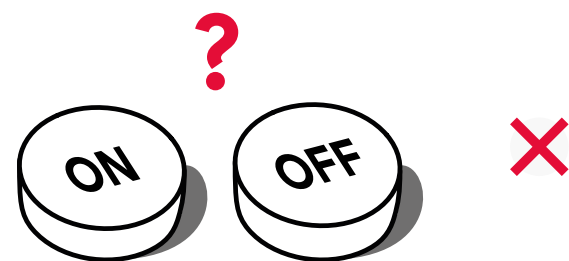
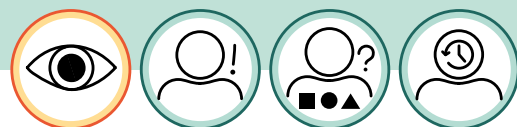
Eyesight provides an overall view of an object. Users with impaired vision familiarise themselves with objects by touching them in a highly localised way. **Interaction** with the object follows an intuitive direction along orthogonal axes or following a standard reading direction from top left to bottom right.



24. Distinguish ON from OFF

There is a clear differentiation between when a machine is switched on and when it is switched off, preventing any misunderstanding or oversight during **usage**.

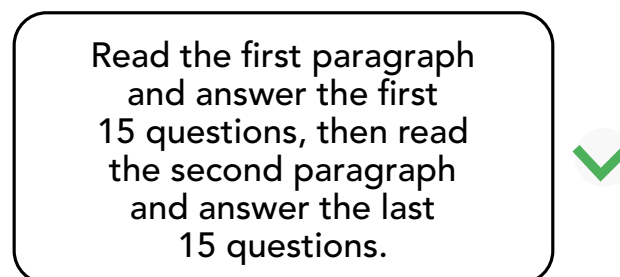
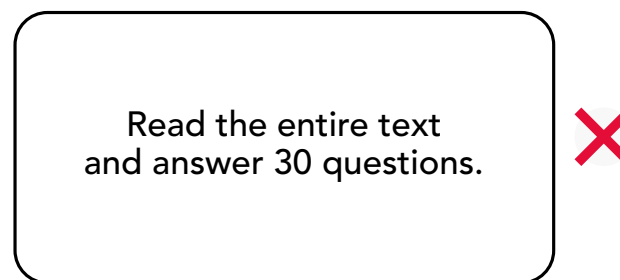
A push button that reverts to the same position whether it is ON or OFF does not indicate the status of the machine. On the other hand, a button that stays pushed in when the user presses it to switch the machine on provides a quick visual and tactile guide as to whether the machine is switched on or off.



25. Boost attention by alternating tasks

Attention is redistributed with each change of task. It is better to boost attention by switching regularly from one task to another, than to continue for a long period of time on one task, which will lead to a gradual drop in attention.

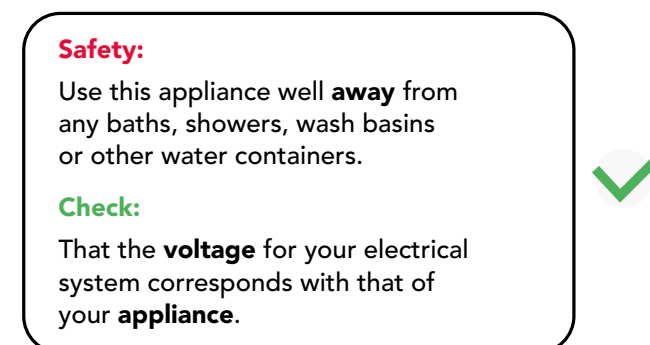
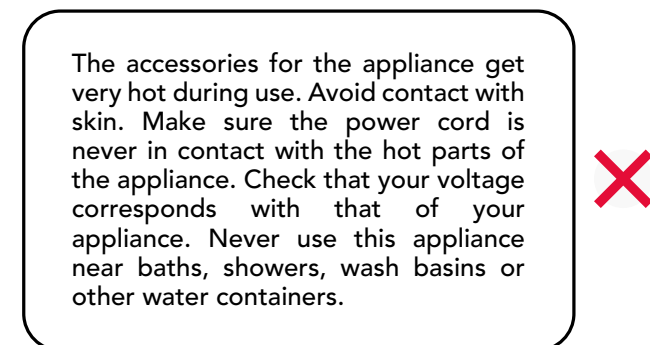
Take these instructions for an educational book, for example:



26. Encourage consistency between elements

Aesthetic consistency makes identification easier by presenting a similar style and appearance (colours, fonts, graphics etc.). For example, all the instructions in a user guide could appear in one colour, with all the prohibitions in a different colour.

Functional consistency supports learning and comprehension by presenting the meaning and the action in an appropriate way. For example, a red button means stop immediately.



27. Entry point

The physical or mental entry point for a **usage** is the first interface through which the user interacts with the object. This entry point determines first impressions and influences the perception of the object as a whole. The more accessible the entry point, the better the potential for the object to be used and appreciated to the full.

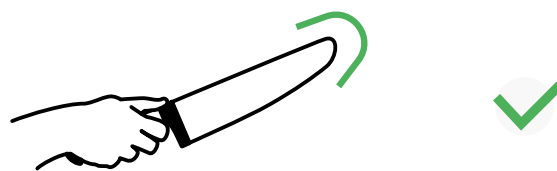
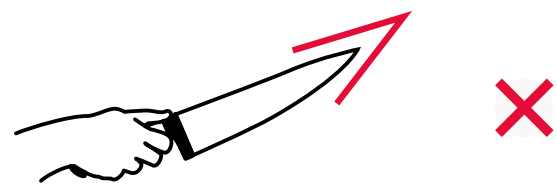
For example, the entry point for a mobile app is the onboarding process. The entry point when receiving a product is when the packaging is opened.



28. Threat detection

Threatening stimuli are detected more effectively than other perceived elements.

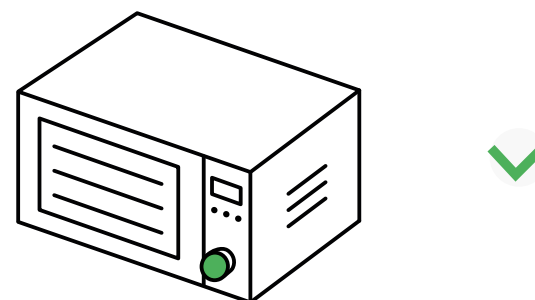
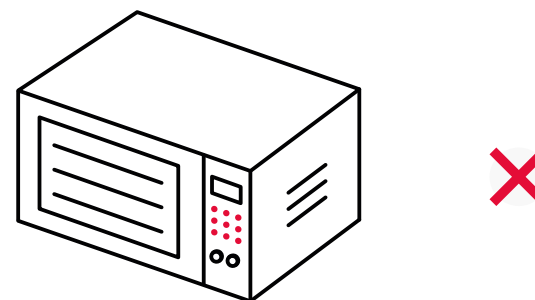
This process of perception should be taken into account when developing first impressions so that they are reassuring. If the object has a detail perceived as a threat by the user, the perception of the entire object will be affected.



29. Most multifunctional, least practical

The more functions an object has, the less easy it will be to use. A multifunctional object can be interpreted in many different ways. A margin of error should be taken into account for each possible interpretation.

An object offering only one function will have little potential for error. An object with several functions will have proportionally more potential for error in use.



30. Help with decision-making

The time required to make a decision is proportional to the number of possible options. Four factors influence the decision-making process: individual or group experience; good judgement linked with the ability to reason; creativity linked with understanding of the past and the ability to imagine a new approach; and the quantitative capacity to process information.

To find out more, take a look at **Hick's law** and the notion of **decision entropy**.



SELECT THE OPTION YOU WANT:

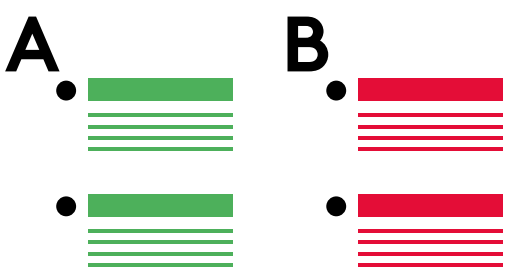
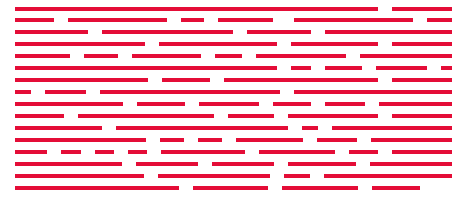
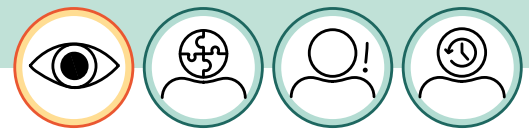
- Starter + main course
- Main course + dessert ✗
- Starter + main course + dessert
- Shared appetisers + starter + main course
- Shared appetisers + main course + dessert

SELECT THE COURSES YOU WANT:

- Shared appetisers ✓
- Starter
- Main course
- Dessert

31. Prioritise information

Information is presented in a prioritised way to make it easier to process and memorise.
Information may be prioritised by its structure (tree, steps etc.) and by its graphic style (colour, typography etc.).

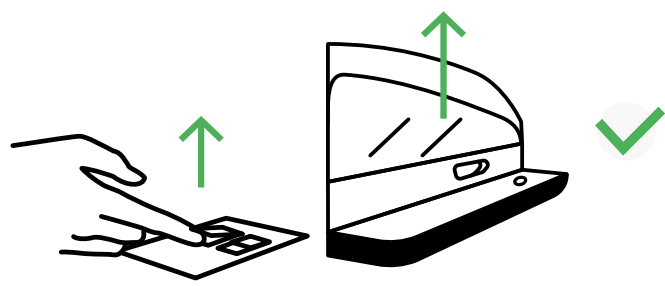
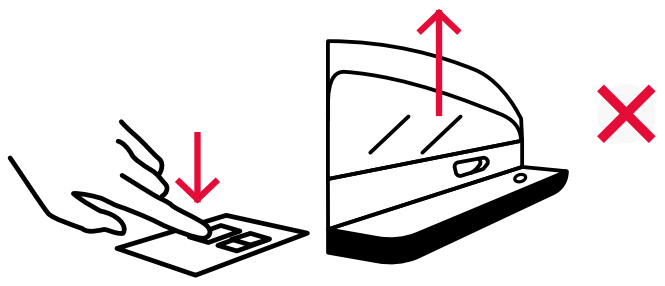
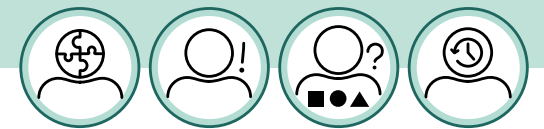


32. Associate actions and effects with the same directions

Controls and their movements or effects on the object follow the same direction. The link between the direction of the action on the control and the direction of its effect on the object makes it easier to mentally project the cause and effect.

For example, increasing the volume by pushing a slider upwards is easy to understand.

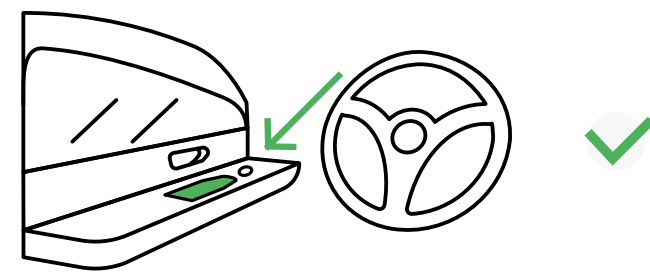
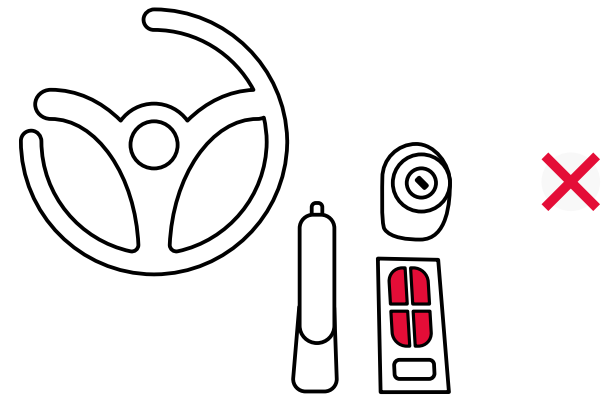
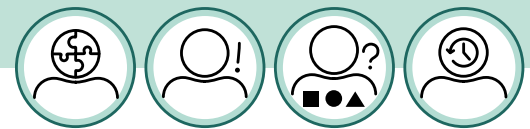
Reducing/increasing volume in a left/right direction is less obvious to interpret.



33. Place controls and their effects close to one another

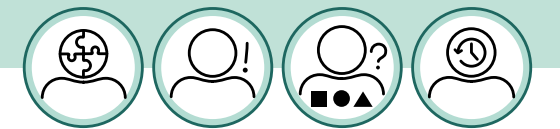
Controls are positioned close to the elements on which they have an effect.

A button positioned a long way from the element it controls, for example, is difficult to associate in terms of functionality.



34. Introduce new usages from a familiar basis

New things to learn are conveyed by basing them on references that have already been learned, understood and recognised by everyone.



An application tells you to "turn the page to continue". People using this digital device for the first time don't know if they should slide their finger or press on the screen. They need a reference point to work out what to do.

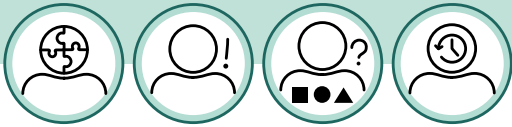


The corner of a digital page looks the same as a physical book and sounds the same as a page turning. People using this new application for the first time easily understand the gesture they need to use to turn the digital page.



35. Arrange information in the right serial position

Information presented at the beginning and end of a list is easier to remember (serial position).



- Results will be noticeable after 3 weeks
- Tablet to be taken 3 times a day
- Do not take this medication if you are pregnant **✗**
- Do not take this medication before driving **✗**
- Ingredients: liquid excipients (water), sweet excipients (saccharose), glycerine excipients (vegetable oil), wax excipients (lanolin)...

- Tablet to be taken 3 times a day
- Results will be noticeable after 3 weeks
- Ingredients: liquid excipients (water), sweet excipients (saccharose), glycerine excipients (vegetable oil), wax excipients (lanolin)...
- Do not take this medication if you are pregnant **✓**
- Do not take this medication before driving **✓**

36. Boost attention by alternating tasks

Attention is redistributed with each change of task. It is better to boost attention by switching regularly from one task to another, than to continue for a long period of time on one task, which will lead to a gradual drop in attention.

Take these instructions for an educational book, for example:



Read the entire text and answer 30 questions. **✗**

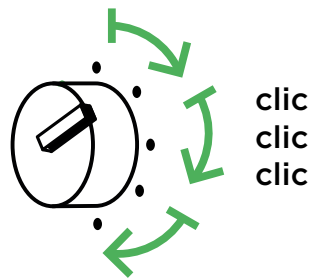
Read the first paragraph and answer the first 15 questions, then read the second paragraph and answer the last 15 questions. **✓**

Element sheets

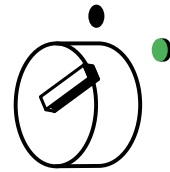
—

1. Buttons

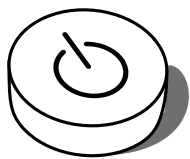
BEST PRACTICES FOR ORIENTATION



Dials with notches allow people with visual impairments to identify notches for different settings by counting them, unlike dials that rotate infinitely without any notches.



The setting can be indicated with a raised mark so that the button can be aligned with the selected programme by touch.

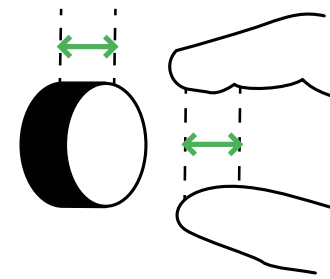


Raised buttons are easily recognisable by touch, unlike buttons that are flush with the panel or recessed buttons.

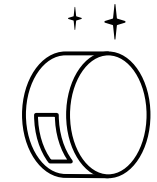


A push button shows whether it is on or off depending on whether it is in its initial position or pushed in. When pushed in, the button indicates that the machine is switched on.

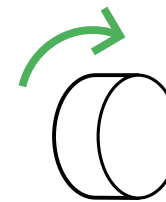
BEST PRACTICES FOR MANIPULATION



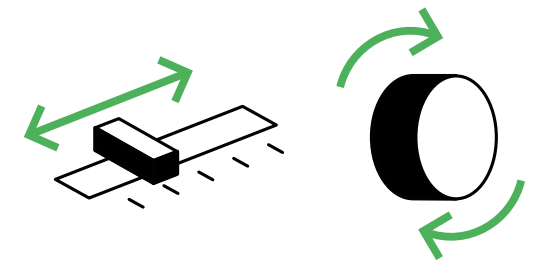
The depth of the button allows the tips of the fingers to be positioned comfortably. The shallower the depth, the more difficult it will be to grasp.



Slippery finishes make buttons hard to grip with the finger tips.



The button requires little strength, making it easy to manipulate and preventing the object from moving during **manipulation**. The strength required must, however, be of a certain intensity to avoid the button being activated by mistake.



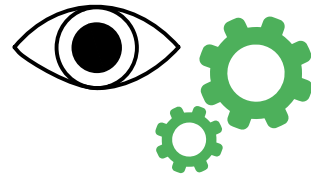
Depending on the context, horizontal sliders seem to be easier to manipulate than rotating dials.

2. Screens

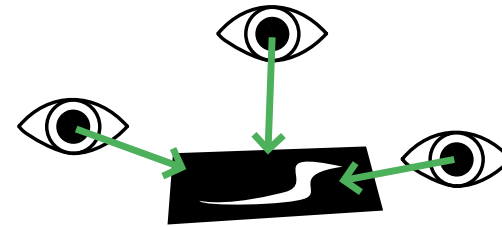
BEST PRACTICES FOR ACCESSING DIGITAL CONTENT



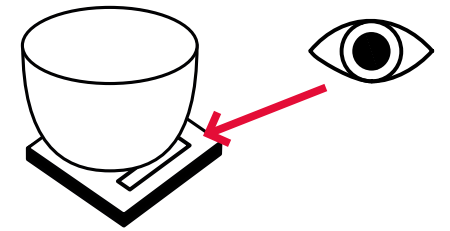
Digital content on screens fulfils the rules for visual **accessibility** with regard to the contrast, colour and size of visible and readable information.



The access path for adjusting **accessibility** settings (enabling the screen reader, increasing text size, changing colour contrast) is itself easily accessible, without having been pre-set.



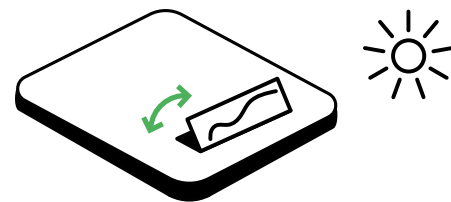
It is important to check the **visibility** of screens from various angles (side, low, high etc.). Screens placed at a height (such as digital screens on ovens) cannot be read by people in a low position (seated, for example).



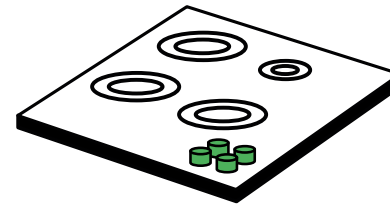
The position of the screen should be tested during **usage**. The screens of kitchen scales, for example, are often hidden when a container is placed on the scales. By shifting the screen forwards, to the side or by making the screen flexible, it can be read during the associated **usage**.



It is preferable to allow written information on the screen to be communicated by a voice alternative.



Tilting screens allow each user to adjust them to suit their own requirements and account for light conditions.



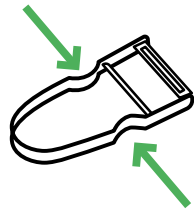
Tactile **interaction** on a digital screen is not accessible for the visually impaired. It is better for them to interact with a physical button.



The reaction time between the steps to be confirmed should allow relatively long response times so that everyone has the time to respond according to their own needs (reading, decision-making, concentration, visual acuity etc.)

3. Colours, materials and finishes

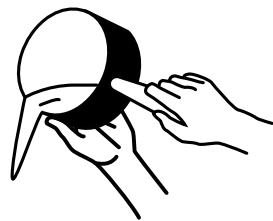
BEST PRACTICES TO FACILITATE HANDLING



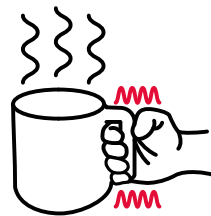
Grip areas designed to be easy to hold help users to keep a firm grip when **handling** the object.



Pay attention to the amount of adhesion offered by surfaces, according to the type of material, finish and angle of use. For example, a bumpy surface will offer better adhesion than a smooth surface.

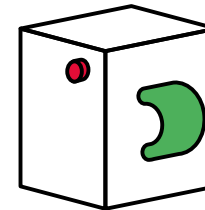


It's important to find out which grip areas are intuitive for users. When pouring, for example, many users will place a hand under the object they are tilting to support the weight. The materials and finishes associated with this area could make this intuitive action safer and more comfortable.

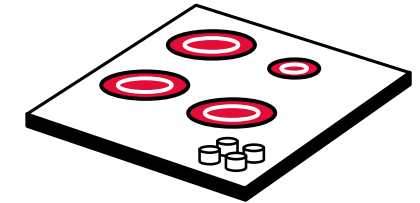


High-risk areas (burns, falls, cuts etc.) in particular must be made safe by using the appropriate materials (low heat conductivity, protection, good grip etc.).

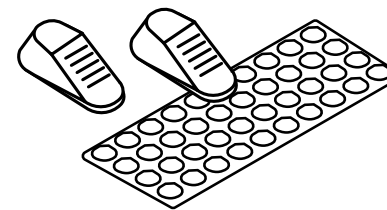
BEST PRACTICES TO FACILITATE VISIBILITY



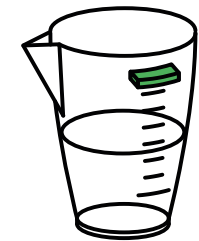
The use of colour allows functional elements, such as buttons or handles, to be highlighted.



Colours can be used to warn of high-risk areas such as places that heat up, sharp elements etc.



By using different textures, materials and finishes, functional elements can be identified and differentiated by touch, as an alternative to visual orientation.



Raised markings can be identified by touch, as an alternative to using eyesight.

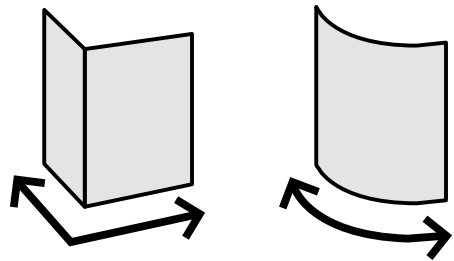
4. Product markings

BEST PRACTICES FOR FINDING, SEEING AND READING MARKINGS



abcd

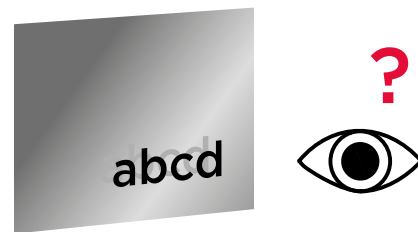
Markings follow the rules for the visual **accessibility** of contrast, colour and size of text and images, according to the background they appear on.



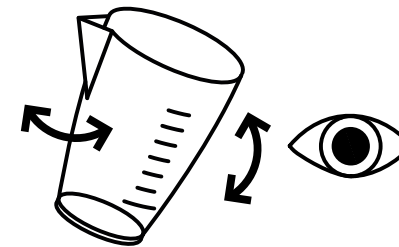
Markings are adapted to the form of the background they appear on, and to any resulting lighting effects, to comply with **accessibility** rules. Markings on a curved metal base do not fulfil the same recommendations for readability as markings on a flat metal base.



Functional markings are placed on the most visible surfaces. Avoid placing a functional marking (instruction, measurement, guideline, for example) underneath another part of the object (handle, open lid etc.).



Markings on a background with a mirror effect are particularly difficult to distinguish and read.



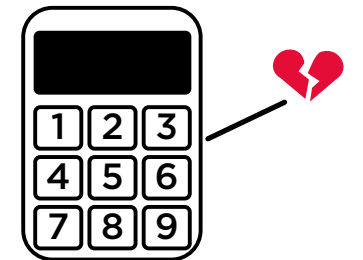
When the background is more difficult to read (transparent, brushed metal, chrome backgrounds etc.), two reactions are observed: the person turns the object or moves around the object to change the angle of view. These reactions should be taken into account in the **usage** of the object.



In addition to the readability of the markings, it is important to test that they are comfortable to read. Some contrast levels, colours and sizes may be legible but are not comfortable to read, which will have an influence on the user's overall experience.



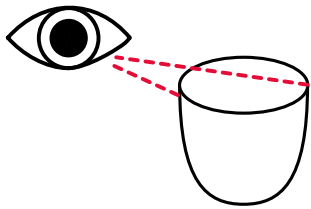
A magnifying lens can be positioned over markings with a restricted size in an area to make them easier to read without taking up more space on the object.



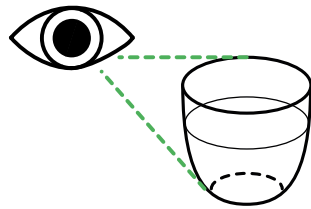
Overly large markings are stigmatising. It is important to work out the size of marking that is comfortable to read without overestimating size, since this carries the risk of provoking a rejection response.

5. Surfaces

BEST PRACTICES FOR SEEING INSIDE A CONTAINER

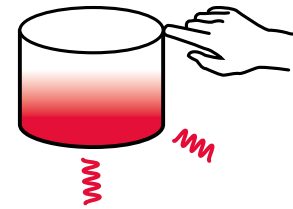


To see the bottom of a container from a standing or seated position, the side of the container must be low enough.

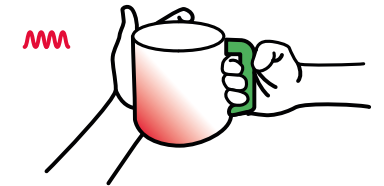


Transparent sides are preferable to translucent sides, to allow the level of liquids or solids in the container to be seen.

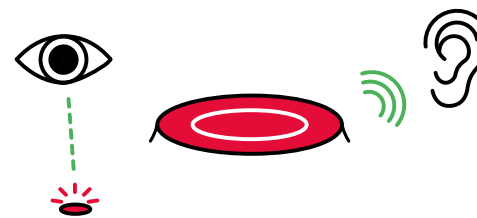
BEST PRACTICES FOR HANDLING HOT OBJECTS



It is important to make objects easier to **manipulate** around hot areas (holding handles away from the sides, easy use with one hand etc.)



Make sure that hot contact zones that may be touched intuitively are protected, when no other protection has been developed already. Here, for example, the hand intuitively curves around the cup, even if a handle that doesn't conduct heat has been designed.



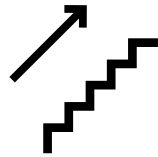
Using various approaches (visual, touch, audio etc.) to indicate hot zones makes orientation and memorisation easier.

6. Pictograms

BEST PRACTICES FOR PICTOGRAM ILLUSTRATIONS



Figurative illustrations are preferable and should offer a precise representation of the situation they are communicating. They do not leave any doubt as to their meaning, regardless of the user's language or customs, and do not require any kind of learning process.

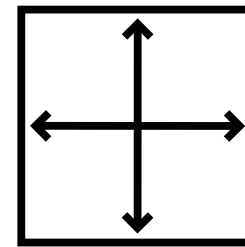


Schematic illustrations represent a given situation but in a simplified way. These illustrations are not identifiable at first glance and require a certain amount of thought.

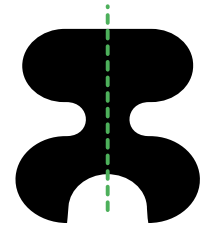


Abstract illustrations are the hardest to understand without any prior knowledge. They do not remind the observer of a given situation. They are not derived from pictures or diagrams but from abstract signs that must be learned.

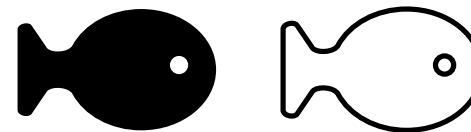
BEST PRACTICES FOR THE SHAPE OF PICTOGRAMS



Aim for shapes in which the length and width are similar and avoid long, narrow shapes.



Aim for symmetrical shapes, which will be easier to identify.



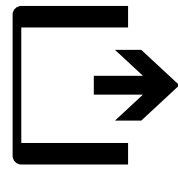
Aim for filled shapes rather than outlines. When using outlines, the lines must be sufficiently thick. Contrast and colours comply with visual accessibility guidelines.

6. Pictograms

BEST PRACTICES FOR THE COLOUR OF PICTOGRAMS



Watch out for any cultural or personal meaning associated with colours. In France, red is for prohibition, blue for obligation, green for authorisation and orange for warning.



EXIT

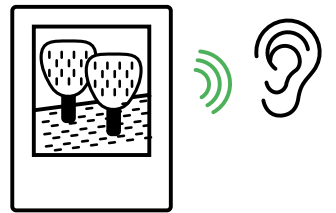
Colour is not necessarily understood by people with mental disabilities. To make it easier to understand, the pictogram can be associated with its meaning using subtitled text.

BEST PRACTICES FOR THE TEXT ASSOCIATED WITH PICTOGRAMS

Sans serif font

Serif font

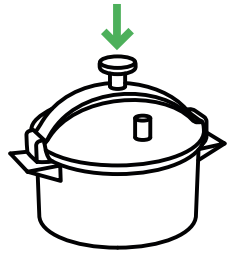
Use sans serif fonts, preferably in size 14, for the text associated with pictograms.



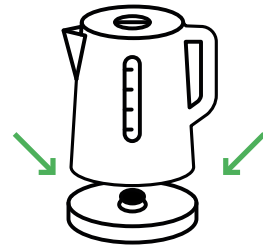
Images and pictograms for digital platforms have an “alt tag” to provide a voice description.

7. Securing in place

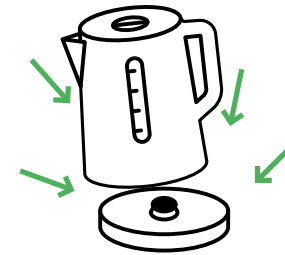
BEST PRACTICES FOR SECURING AN ELEMENT TO AN OBJECT



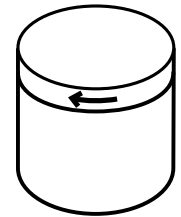
The gesture that requires the least amount of effort from the user involves securing the object from high to low, following the direction of gravity. This direction should be used if the weight of the element to be secured is heavy.



Indexing is designed for both right-handed and left-handed users.



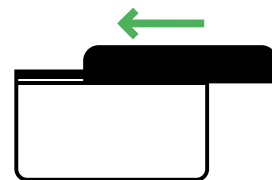
Aim for indexing to be possible in multiple positions.



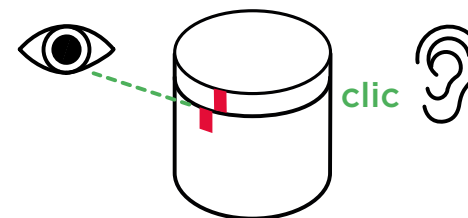
For attachment by rotation, the direction of rotation is indicated by arrows.



The object on which the element is to be attached is stable and fixed in place during the action. If the securing mechanism is lateral or rotating, the object is stabilised on an adhesive, non-slip base.



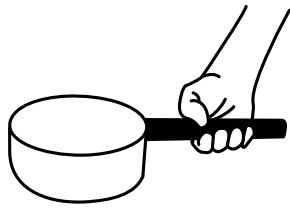
Indexing may be difficult to find at first, while also holding the object to be secured. Sliding means the weight of the object does not have to be supported.



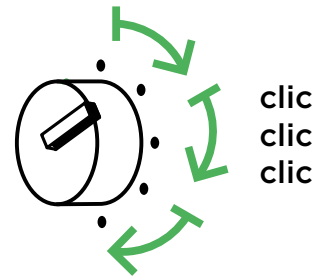
The attachment is confirmed by an indicator that can be visual and audible. For example, a guide can indicate that the element is secured correctly in place or an audible “click” can reassure users that the object is secured.

8. Grips

BEST PRACTICES WILL BE DIFFERENT ACCORDING TO THE POSITIONING OF GRIP AREAS



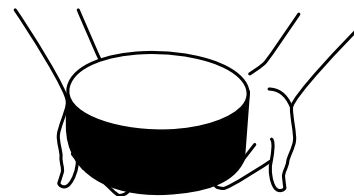
A position horizontal to the object.



A position vertical to the object.



A position above the object.

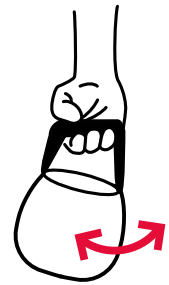


A position below the object.

BEST PRACTICES FOR THE POSITIONING OF HANDLES FOR LIFTING A WEIGHT



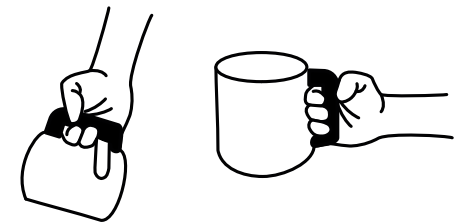
The weight is perceived differently depending on the centre of gravity of the object, the positioning of the handles and the angle of the arms during the action.



Gripping from above, like a basket handle, allows the use of just one hand and means the object can be carried a long way. However, the swinging effect may not seem very reassuring.



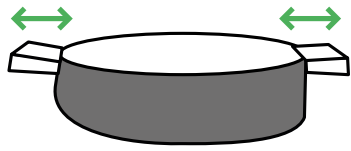
Carrying the object from underneath can give the impression of a light weight. The natural reflex is often to shift the volume of the object towards the front of the body to alleviate the weight. This type of grip should be avoided for objects carrying the risk of burns or spilling liquid.



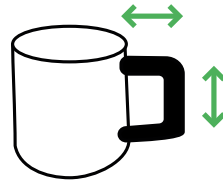
The design of the grip area should be verified according to the various ways of holding the item and different grip strengths.

8. Grips

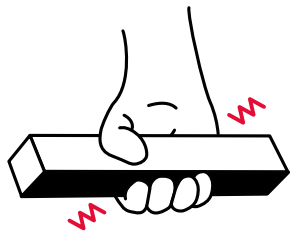
BEST PRACTICES FOR THE SHAPE OF GRIP HANDLES



The width of the grip areas is optimised to ensure safe handling.



The opening is wide enough to allow it to be targeted and handled easily.



Handles with sharp edges are uncomfortable if the grip needs to be changed. For example, these bar-shaped handles may be suitable for lifting up, but the grip becomes uncomfortable when rotating the handle to pour.



For the materials used in grip areas, refer to point 3: Colours, materials and finishes.