

# UNIVERSAL DESIGN

Universal Design is a concept developed to ensure that products and environments are easily usable by the widest group of people possible regardless of physical ability or other considerations. It is based on the following principles:

## PRINCIPLE ONE: EQUITABLE USE

It should provide the same means of use for all users: identical whenever possible; equivalent when not. It should avoid stigmatizing any users.

- *Power doors with sensors for all users.*

## PRINCIPLE TWO: FLEXIBILITY IN USE

It should accommodate a wide range of individual abilities and preferences and be adaptable to the user's pace.

- *Left-handed or right-handed tools.*

## PRINCIPLE THREE: SIMPLE AND INTUITIVE USE

It should be easy to understand regardless of experience, knowledge, or language skills. Provide effective prompting and feedback during and after use.

- *Instructions with pictures in addition to text.*

## PRINCIPLE FOUR: PERCEPTIBLE INFORMATION

It should communicate information effectively to the user, regardless of conditions or the user's sensory abilities. It should be compatible with the techniques or devices used by people with sensory limitations.

- *Voice communication in addition to signs in train stations.*

## PRINCIPLE FIVE: TOLERANCE AND ERROR

It should minimize consequences of unintended actions, such as including fail safe features.

- *"Undo" feature in computer software.*

## PRINCIPLE SIX: LOW PHYSICAL EFFORT

It should be used comfortably and with a minimum of fatigue.

- *Lever handles on doors and faucets.*

## PRINCIPLE SEVEN: SIZE AND SPACE FOR APPROACH AND USE

It should be able to accommodate use, reach and manipulation regardless of the user's body size, posture, or mobility.

- *Wide doors or turnstiles.*

Source: [https://projects.ncsu.edu/design/cud/about\\_ud/udprinciples.htm](https://projects.ncsu.edu/design/cud/about_ud/udprinciples.htm)