



Accessibility Tools in iOS 27





1 General information

In this guide, iOS is used as the name of the operating system for all Apple devices. Strictly speaking, however, the iPad has its own operating system – iPadOS. This differs from iOS in that it has advanced gesture control, a partially different interface and additional functions that only make sense on a larger display, such as screen splitting when zooming.

However, the extensive accessibility features are largely identical in both operating systems. Where necessary, the differences are discussed.

As is now common practice among many manufacturers at the time of release, Apple has adjusted the version numbers to the year of the following year, which is why there appears to be a large version jump from iOS 18 to iOS 26 this year.

If you scroll to the bottom of Settings -> Accessibility, you will find the sub-item 'Shortcut'. If you tap to select several accessibility features here, you can quickly activate or deactivate the selected accessibility features using the Home button or, on devices without a Home button, the right-side button (iPhone) or the top button (iPad). To do this, press the corresponding button three times in quick succession and then activate or deactivate the desired accessibility feature in the menu that opens. Conveniently, the click speed of the side or home button can be adjusted in three stages (Settings -> Accessibility -> Side Button/Top Button/Home Button).

The iPhone offers another way to quickly turn an accessibility feature on or off. Under Settings -> Accessibility -> Tap, you will find the option 'Tap Back'. If this is turned on, you can define an action for a double tap and a triple tap on the back of the iPhone. For example, you could define triple-tapping the back of the iPhone to turn the zoom on and off, and triple-tapping the Home or Side button to turn VoiceOver on and off.

2 New features in iOS 27

2.1 General new features

- Improvements and new features in Apple Intelligence
- Improvements to the 'Screen Time' app and parental controls
- Improvements to the 'Playground' app, including the ability to create photorealistic images



2.2 Of particular interest to users with visual impairments

VoiceOver

- more detailed, context-sensitive image descriptions
- you can now also ask questions about an image or the content on the screen
- new Action Button integration: on an iPhone with an Action Button, visual recognition and VoiceOver can be accessed more quickly

Magnifier

Magnifier is becoming significantly more powerful. It can recognize visual information from the surroundings and describe it in natural language. To this end, it has a new 'Ask' button. It can also be controlled more extensively by voice, for example with a command such as 'Zoom in'.

Accessibility Reader

There are also significant improvements here:

- now works better with complex documents
- can process text with multiple columns, images and tables
- can create summaries via a new button
- can translate text via a new button
- can now read aloud from any point

Live Recognition

With Live Recognition, the iPhone/iPad can describe objects in the surrounding environment using AI.

Voice Control

Voice Control now understands more natural descriptions. Bluetooth headsets are now also supported.



2.3 Accessibility features – Vision section

2.2.1 VoiceOver – VoiceOver Recognition

A new feature is 'On-Device Mode' for those concerned about data privacy. The image description is generated solely on the device rather than via a server, but is therefore not as accurate.

Live recognition has been enhanced and there are now additional customisation options. For example, you can set a default question.

2.2.2 VoiceOver – Rotor

A new option, 'Use Edit Rotor in Text Fields', has been added and can be enabled. When VoiceOver focus lands on an editable text field, the 'Edit' rotor is automatically selected.

2.2.3 Read & Speak - Accessibility Reader

A new option, 'Content Clean-up', has been added and can be enabled. This removes unnecessary elements, such as adverts, from the Reader window.

2.2.4 Live Recognition

The 'Live Recognition' option has been added to the 'Vision' section. (see sections 3.5 and 14.3)

2.4 Accessibility – 'Hearing' section

2.4.1 Sound & Name Recognition

The 'Sound Recognition' option has been renamed 'Sound & Name Recognition', and there is now an additional sub-option called 'Name Recognition'.

2.4.1 Automatic Subtitles

The 'Live Captions' section has been added. iOS 27 can automatically generate subtitles for videos, even if the video does not originally contain any. When 'Live Subtitles' is enabled and a video is played, the iPhone/iPad captures the audio and transcribes the speech into text in a separate window.



3 VoiceOver

This mode is primarily intended for blind people. If VoiceOver is switched on, the entire screen content can be read aloud. However, the operation of the iPhone changes. For example, objects under the finger are initially only read aloud and only a double tap on the object or - in the case of a marked object - a double tap anywhere on the screen surface triggers the corresponding action (open folder, start app, activate button).

3.1 Setting

Via Settings -> Accessibility -> VoiceOver

3.2 Practice Mode

A double tap with four fingers starts the VoiceOver practice mode. Here, all gestures can be tried out without stress because no actions are triggered in practice mode. A spoken explanation is given for each gesture performed in practice mode.

3.3 Gesture control

3.3.1 One-finger gestures

- **Touch the screen (and move your finger):** The object that is currently under the finger is announced. The object is highlighted.
- **Double tap:** The object selected with the VoiceOver cursor and previously announced is activated or triggered. The double tap can be performed anywhere on the screen.
- **Double tap and hold:** If you are in an input field, this gesture can be used to open a context menu that contains functions such as copy or paste. On devices with Force Touch, the context menu of an app can also be opened by double-tapping and holding (pressing) a little more firmly.
If you use a standard gesture such as a swipe directly afterwards, you can, for example, operate a slider or move a selection.
On the home screen, you can double-tap and hold followed by a light swipe to switch to edit mode and delete apps or rearrange apps or folders.
The gesture can also be used to keep a button pressed.
- **Triple tap:** This gesture on the element selected with VoiceOver corresponds to double tapping on an element without using VoiceOver. This allows you to activate continuous capitalisation on the keyboard, for example.
- **Right or left swipe:** The right swipe moves the VoiceOver cursor forward over the selectable elements of the screen and reads them out. The left swipe moves the VoiceOver cursor backwards through the selectable elements.
- **Swipe up or down:** This gesture has different functions depending on which element you are on. If you are on a setting field or on a slider, you can use this



gesture to adjust the corresponding element. With lists, you can move forwards and backwards through the list elements.

If you are not on a corresponding element, this gesture executes the function selected in the rotor control, e.g. changing the speech rate.

3.3.2 One-finger gestures for iOS devices without a home button

- **Slowly swipe upwards from the bottom edge until the iOS device vibrates once:**
 - **if the device is locked:** unlock the iPhone (hold the device in front of your face)
 - **if the device is unlocked:** return to the Home screen.
- **Slowly swipe upwards from the bottom edge until the iOS device vibrates twice:** Open app switcher
- **Slowly swipe down from the top edge until the iOS device vibrates once:** Open control centre
- **Slowly swipe down from the top edge until iOS device vibrates 2x:** Open message centre

3.3.3 Two-finger gestures

- **Split tap (select an object with one finger, tap the screen with the second finger):** This gesture replaces the double tap.
On certain elements, a double tap with the second finger triggers a triple tap, e.g. on the shift key on the keyboard for continuous capitalisation.
- **Tap with two fingers:** This gesture interrupts VoiceOver reading aloud. If you tap again, VoiceOver will continue reading aloud at the same point, provided no other gesture has been performed in the meantime.
- **Double tap with two fingers:** This allows you to answer and end a call or start and pause music. You do not have to be in the corresponding app to do this. If the write cursor is in an input field, this gesture can also be used to start and end the dictation function.
- **Double tap with two fingers and hold:** This gesture can be used to label or rename elements.
- **Triple tap with two fingers:** This gesture lists all items that are on the current page. You can perform this function within any app. The item selection can be closed again by pressing the Home button or by using the one-finger gesture for iPhones without a Home button.
- **Swipe down with two fingers:** VoiceOver reads out all elements of the screen, starting at the current position of the VoiceOver cursor.
- **Swipe upwards with two fingers:** VoiceOver reads out all elements of the screen, starting from the very top.
- **Z-swipe with two fingers:** This gesture activates the back button and is also called zigzag. It does not matter in which direction the zigzag gesture is performed on the screen.



- **Rotor gesture:** The rotor can be used to quickly activate various functions. The most common way is to place the thumb and index finger on the screen as if gripping a rotary switch and simulate a short rotary movement. After each rotary movement, you can briefly put it down. If the interruption is not too long, you can move through the individual elements in the rotor. Which elements appear in the rotor is determined under Settings -> Accessibility -> VoiceOver -> **Rotor**. Selected rotor elements may also only appear in the appropriate context.

3.3.4 Three-finger gestures

Attention! If the accessibility tool Zoom is activated in the background (the magnification itself can be off), then some of the VoiceOver gestures mentioned here change. It may be necessary to perform an additional tap to achieve the desired result. For example, a double tap with three fingers with the zoom activated and VoiceOver still starts the zoom enlargement, and to deactivate the voice output you have to tap three times with three fingers. The following description therefore assumes that Zoom has been completely deactivated.

- **Three-finger tap:** VoiceOver reads out the current position of the VoiceOver cursor on the screen and additional information about the screen elements and their total number.
- **Double tap with three fingers:** This gesture mutes or reactivates the voice output of VoiceOver.
- **Triple tap with three fingers:** This activates or deactivates the screen curtain. When the screen curtain is activated, the screen is switched off and power consumption is reduced.
- **Four-tap with three fingers:** This gesture copies the last spoken text to the clipboard.
- **Right or left swipe with three fingers:** This gesture is used to change pages horizontally, e.g. to scroll backwards and forwards on the Home screen.
- **Swiping down or up with three fingers:** This gesture allows you to scroll up and down.
If the VoiceOver cursor is in the status bar at the top of the screen, a swipe up opens the Control Centre and a swipe down opens the Message Centre.
On the Home screen, swiping down opens the search.

3.3.5 Four-finger gestures

- **Tap the top or bottom of the screen with four fingers:** Moves the VoiceOver cursor to the first or last item.
- **Tap twice with four fingers:** Starts VoiceOver practice mode.
- **Tap three times with four fingers:** Starts live recognition.



3.3.6 Four- or five-finger gestures (iPadOS only)

- **Right or left swipe with four or five fingers:** Switches between the open apps.
- **Swipe upwards with four or five fingers:** Opens the app switcher.
- **Swipe down with four or five fingers:** Closes the app switcher.
- **Pinch four or five fingers together:** Switches to the Home screen.

3.4 Image and text recognition

If the VoiceOver focus is on such an image and you tap it once with three fingers, VoiceOver will attempt to recognise the image. In the case of photos of people, it can identify the number of people and their facial expressions. Text recognition in images is also possible.

In the menu item under Settings -> Accessibility -> VoiceOver -> **VoiceOver Recognition**, the sub-item Image Descriptions can be activated so that VoiceOver automatically describes images in apps and on the internet. This works with astonishing level of details in some cases.

By activating the sub-item **Screen Recognition**, VoiceOver tries to improve the operability of apps that have no info for operation. In addition, related objects are grouped. The apps to which this function is to be applied must be specifically selected. How much benefit this new function brings depends on the app in question. In the Sygic navigation app that I selected for testing, it suddenly led to all the street names on the map being selected and read aloud when swiping.

By activating the sub-item **Text Recognition**, VoiceOver tries to recognize text in pictures.

Image recognition can be added to the rotor as a rotor item. A separate selection of sub-items is then available for the 'Image recognition' rotor item, e.g. 'Ask questions about the image'.

In the settings (Accessibility – VoiceOver Recognition), there is an 'On-Device Mode' option for those concerned about data privacy. The image description is generated solely on the device rather than via a server, but is therefore not as accurate.

3.5 Live Caption and Asking Questions

Via the 'Live Caption' sub-item, the iPhone/iPad can use AI to describe objects in the surrounding environment.

It offers the same recognition modes as described in section 13.2 for the Magnifier.

Live Caption can be added to the rotor as a rotor element. A separate selection of sub-elements is then available for the 'Live Caption rotor element.

There are three ways to start Live Caption with questions:



- on compatible iPhone models, via the Action Button (Settings – Action Button – Accessibility – Ask a Question)
- by tapping the back of the iPhone (Settings – Accessibility – Tap – Tap Back – Accessibility – Ask a Question)
- by adding it to the Rotor; there, select 'Live Detection' and then use the up/down swipes to select 'Ask', followed by a double-tap

With all three of these options, once activated, you can ask questions about what the camera is currently capturing without any further user input.

If you want to access Live Caption quickly, without the option to ask questions and without an additional window appearing, you can also assign the Action Button as follows:

Settings – Action Button – Accessibility – Describe Scene

Now, holding down the action button for a little longer will trigger a description of the surroundings. Holding down the action button again for a little longer will stop the description.

3.6 Further info

Via Settings -> Accessibility -> VoiceOver -> **Speech**, additional languages can be added to the rotor language, a different voice can be selected, automatic speech recognition can be switched on for reading aloud and own pronunciation rules can be defined for certain words

The amount of information in the spoken messages etc. can be reduced via Settings -> Accessibility tools -> VoiceOver -> **Verbosity**.

A connected Braille display can be configured for VoiceOver via Settings -> Accessibility -> VoiceOver -> **Braille**.

You can create Braille notes using a Braille display via Settings -> Accessibility -> VoiceOver -> Braille -> **Braille Access**.

Via Settings -> Accessibility -> VoiceOver -> **Audio**, you can set VoiceOver to reduce the volume of music or similar for a short time during messages so that the information can be better understood. In addition, it is now possible to control whether the VoiceOver signal is sent via HDMI. This is exciting, for example, if the iPad is used for a lecture and only the sound of a presentation, but not the VoiceOver voice, is to be forwarded to the beamer/speaker.

Via Settings -> Accessibility -> VoiceOver -> **Commands**, you can assign touch gestures to other actions or define touch gestures for new actions. For example,



the gesture tap twice on the back of the iPhone could be used as an alternative to the default gesture (swipe up slowly from below with one finger) on iPhones without a home button.

The typing mode, among other things, can be changed via Settings -> Accessibility -> VoiceOver -> **Typing**. In the "Touch Typing" input mode, characters are entered directly after the respective key is released, which is much easier than double-tapping each key.

Via Settings -> Accessibility -> VoiceOver -> **Navigate images**, you can specify whether VoiceOver should skip images in general, only those with an alternative text or all of them.

Via Settings -> Accessibility tools -> VoiceOver -> **Large cursor**, the frame around the element currently marked by VoiceOver can be displayed significantly thicker, which can be helpful for users with a visual rest.

Via Settings -> Accessibility tools -> VoiceOver -> **Caption Panel**, text can always be displayed at the bottom of the screen to indicate what information VoiceOver is currently outputting via speech or via the Braille display.



4 Accessibility Reader

4.1 Settings

Via Settings -> Accessibility -> Reading & Speaking -> Accessibility Reader

4.2 Functions

Once you have opened any app on your device, you can launch the Accessibility Reader. It is best to add the command for this to the Control Centre. This allows you to access it quickly with a single swipe and tap.

If no text is recognizable, the reader will display a corresponding message. Otherwise, a control bar will appear at the bottom of the screen, which you can use to start and pause playback, among other things. At the top right of the screen, there is a small button with three dots. If you tap on it, you can customize the reader's reading window via Customize Reader -> **Edit**. Among other things, you can change the contrast, font size, font type and line spacing.

The 'High Legibility Characters' option is only available if you are using a system font.

If the 'Show links' option is enabled under 'Hyperlinks', you can customize the colour.

If 'Highlighting' is activated under Playback, you can customize the style or highlight colour.

Tip: Under 'Rename', you can give all the settings you have made their own name.

By double-tapping anywhere in the text, you can start the text-to-speech function from a specific position.

You can use the 'Summarise' button to generate a short summary.

The 'Translate text' button (icon with two speech bubbles) allows you to translate the content into another language directly within the Reader window.

In the settings, under the 'Content Clean-up' option, you can configure the Reader window to remove unnecessary elements, such as adverts.



5 Zoom

When Zoom is activated, the entire screen content can be enlarged continuously.

5.1 Setting

Via Settings -> Accessibility -> Zoom

5.2 Gestures

- To switch on and off, double-tap the screen with three fingers.
- To move the screen, swipe three fingers across the screen surface.
- To change the zoom factor, double-tap with three fingers, leave your fingers on the screen after the second tap and move your fingers up (zoom in) or down (zoom out) together.
- To display the zoom control, triple-tap the screen with three fingers.

5.3 Modes and control of magnification without gestures

Not only can the entire screen be enlarged, but you can also switch to "Window zoom" in the zoom control under the menu item "Choose region". This gives you a magnifying glass of variable size that you can move across the screen.

With the iPadOS, another practical function was added: Pinned Zoom. This corresponds to the screen division known from magnification programs such as ZoomText and only one part of the screen is magnified. The function is only available on the iPad.

Those who do not like to work with gestures can also use the zoom controller.

Switch on via Settings -> Accessibility -> Zoom -> Zoom controller -> Show Controller

For better visibility of the controller, it is recommended to set the "Idle Opacity" to 100%.

Single-tap the controller to show the menu.

Double-tap to switch the zoom on or off.

A triple-tap can be assigned so that text is then read aloud with a tap. If you leave your finger on the screen without lifting it, text is read out continuously. This is practical in a WhatsApp chat, for example, to have several parts of a conversation read aloud.

If you keep your finger pressed on the controller, the image is only enlarged until you release your finger again. The focus follows the finger on the screen.



5.4 Further info

In the settings, the maximum zoom level can be set and focus tracking can be activated.

If the "Intelligent Input" function is activated (iPhone only), the magnification for text input changes to the zoom window even when the full screen zoom is set and only the text area is magnified, but not the keyboard.

6 Hover Text

6.1 Setting

Via Settings -> Accessibility -> Hover Text

6.2 Functions

6.2.1 iPad

If a keyboard with trackpad is connected to the iPad, then when the special key is pressed the text under the mouse pointer is enlarged and displayed in a text box with high contrast. The special key is the CTRL key by default, but it can be changed under the **Control** section.

Alternatively, a Bluetooth mouse can also be used. I used Apple's Magic Mouse for testing. In this case, no special button is required.

The position of the text box, the font and the font size can be changed in the **Text** section. Under the **Content** setting in the same section, you can choose between 'Text', 'Colour' or 'Text & Colour'. If 'Colour' is selected, the colour directly under the mouse pointer is displayed as text.

The background colour and the text colour in the box, as well as the colour of the border can be changed via the section **Colours**.

The function is not only handy for quickly enlarging individual text elements, but can also be used to display text that cannot be read properly due to poor contrast, because the text under the pointer is always displayed in the specified contrast of the box, regardless of the text and background colour of the original. This is white text on a black background by default.

In the test, this tool worked well for the most part. In some (third-party) apps, however, the enlargement showed any text but the text under the mouse pointer, and in Apple's own app Notes, the entire text is always enlarged from the beginning of the note, regardless of where you point to in a note. The text moves through the box as a ticker. The speed of the ticker can be changed in the **Text** section.

6.2.2 iPad and iPhone

Once Floating Text has been activated, a small square button appears that can be moved freely around the screen. Tap the button once to lock finger input and



display the enlarged text (or colour, depending on your selection) under your finger. To cancel, simply tap the button again.

7 Display adjustments for text and contrast

7.1 Setting

Via Settings -> Accessibility -> Display & Text Size

- **Larger text**

also via Settings -> Display & Brightness -> Larger Text

- **Bold Text**

also via Settings -> Display & Brightness -> Bold Text

- **Increase Contrast**

- **On/Off Labels**

- **Reduce Transparency**

- **Increase Contrast**

- **Differentiate Without Colour**

- **Smart Invert and Classic Invert** (colour inversion)

- **Colour Filters**

In addition, the home screen layout can be displayed larger via Settings -> Display & Brightness -> Display Zoom -> Larger

7.2 Functions

The above-mentioned accessibility tools are largely self-explanatory.

When "On/Off labelling" is activated, the status of a switch is not only indicated via the colour (green for on, grey for off), but also receives an additional character (I for on and 0 for off).

7.3 Larger text

The settings made here via the slider have a system-wide effect on all apps, but unfortunately not on all elements with text.

A new feature of iOS 15 is that you can now change the text size for individual apps. However, it is not exactly self-explanatory how this can be done. The following procedure is the easiest way to change the size individually:

Settings -> Control Centre -> tap the green plus symbol in front of "Text Size" to enable quick access to it via the Control Centre. Now open any app, tap the newly added button "Text size" (AA) in the Control Centre, move the slider at the bottom from the right "All apps" to the left "Only xy app" (!!) and only then change the text size.



7.4 Dark Mode

As soon as "Dark Mode" is switched on, the formerly white surface elements of iOS change to black or dark grey) and the text changes to a lighter colour for better readability. This is not only easier on the eyes and improves the contrast, but with the OLED displays of the newer iPhones, Dark Mode also extends the battery life. The option can be found under "Display & Brightness".

7.5 Plain black background image

Since iOS 13, there is finally also a simple, black wallpaper.

iPhone: Settings -> Wallpaper -> Customise -> Colour -> Select black at the very bottom, right corner

iPad: Settings -> Wallpaper -> Choose a New Wallpaper -> Stills -> Select black at the very bottom, right corner

8 Reduce motion

8.1 Setting

Via Settings -> Accessibility -> Motion -> **Reduce Motion**

8.2 Function

The liquid glass effect introduced with iOS 26 also brings numerous motion animations, such as shimmering edges on widgets and apps. These effects can strain both the eyes and the battery and can be turned off with this option.

9 Voice output

The voice output can also be used without VoiceOver switched on.

9.1 Setting

Via Settings -> Accessibility -> Read & Speak

9.2 Functions

- **Speak Selection:** Read aloud selected text in apps.
- **Speak Screen:** Once activated, it is sufficient to swipe down from the top of the screen with two fingers and the screen content is read out. Unfortunately, the gesture often also activates the message centre. For safe operation, the voice controller can be permanently displayed (see below). If a text is read aloud, the



device can also be sent to standby without the voice output being interrupted. Further navigation is possible without interrupting the read aloud function. In contrast to using VoiceOver, the operation does not change, which also makes it interesting for visually impaired people.

- **Voice controller:** Activate via Settings -> Accessibility -> Spoken Content - Voice controller. If necessary, increase the opacity under the controller actions so that it is always clearly visible. Afterwards, there is always a small black arrow on the screen. The position on the screen can be changed as desired by dragging it. Depending on the setting under the controller actions, a long press or a double tap on the black arrow triggers the respective predefined function. You can choose between "Read all contents" and "Read out on touch". As long as you do not lift your finger again when using the latter function, you can move to any other place on the screen and have more text read aloud.
- **Highlight Content:** spoken content is additionally highlighted visually
- **Typing Feedback:** This allows you to activate acoustic feedback when entering text. For example, the keys pressed can be spoken along.
- **Voices:** Other voices can be set for the respective language, e.g. the much more natural sounding male or female Siri voice.
- **Pronunciations:** Here you can define pronunciation rules for certain voices or for all voices, e.g. if your own name is pronounced incorrectly.

9.3 Personal Voice for voice output

Under Settings -> Accessibility -> Speech section, you will find the sub-item **Personal Voice**. Here you can use your own voice as voice output after training. Unfortunately, this feature is still only available for English. The recorded voice can also be integrated into VoiceOver. To record, you must repeat 150 English sentences. The iPhone/iPad must then be connected to a power source and locked while it processes the recordings for an extended period of time. According to a tip on the internet, the 'Always-On Display' feature should be turned off if the processing shows no progress. The voice will then also be available on other devices with the same Apple ID, provided that the corresponding switch is flipped.

Since the device does not care which voice is recorded, it would theoretically also be possible to include the voice of your partner, for example, provided that he or she is willing to repeat 150 sentences.

10 Voice input

10.1 Voice Control

Unlike Siri, voice control also works without an internet connection. It can be activated with "Hey Siri, turn on voice control" or via Settings -> Accessibility -> Voice Control. Approximately 350 MB of data must be downloaded before using it for the first time. Some useful things can be done with the voice control. For



example, you can open an app directly with "Open <App Name>", get to the home screen quickly with "Go to Home" even without the home button or lock the screen with "Lock Screen". Practical commands are also available for text processing, e.g. "Go to end" or "Go to beginning", "Select all text" or "Undo" (undo last change). Text can also be dictated.

A detailed list of commands is available under Accessibility tools -> Voice control -> "Customise commands". Unfortunately, one has to know the predefined order of the commands, so you have to say the name of the app first and then "open", for example, otherwise nothing happens.

Attention: The switched-on voice control reacts in text input fields to voice outputs such as VoiceOver and creates a new text with the spoken words of the voice output.

10.2 Siri and speech recognition

The iOS devices have a voice assistant in the form of Siri, with the help of which many functions of the iPhone can also be controlled via voice commands, as well as a very sophisticated voice recognition system with which texts can be written quickly and easily.

Siri requires an internet connection, but voice recognition for text input does not. Phone calls and FaceTime calls can be ended with the Siri command "Hey Siri, hang up".

10.3 Voice shortcuts

Under Settings -> Accessibility -> Speech section

This allows you to teach your iPhone/iPad your own voice commands for launching apps, etc. The device will then respond to the voice command without you having to press any buttons.

11 Assistive Access

The function "Assistive Access" in the "General" section limits apps to important features with the idea of supporting people with cognitive, visual, auditory or motor impairments. Apps can be displayed larger via the "Rows" option. They are displayed in a list instead of the usual grid and with significantly higher contrast.

Apps can be added specifically via "Applications" - "Manage apps". This way one can quickly configure an iPad or iPhone with only the apps which are really needed, without having to move dozens of apps around and hide them in folders or on the second page as before.

The mode also combines applications such as "Phone" and "FaceTime" into one app, so that despite more clarity, one does not have to do without the functions one needs.



12 Further accessibility tools

There is a whole range of other accessibility tools, e.g. for people with hearing impairments or for people with physical impairments.

The option of activating audio descriptions should also be mentioned at this point. It is located in the upper section of the accessibility tools under the menu item "Audio Descriptions".

The noise detection function can be found under Settings -> Accessibility in the 'Hearing' section.

After activation, the iOS device constantly watches for previously defined sounds (e.g. siren, doorbell, running water) and notifies the user when such a sound has been detected. People with a hearing impairment can therefore be warned of an approaching ambulance, for example. In the test, my doorbell was reliably detected in all rooms of my apartment. Knocking on the door was also recognized, but only if the distance was not too great. An individual sound can be taught.

iPad only: In the Accessibility settings, under Accessories, there is an entry for Pointer Control. However, this only appears when a mouse or trackpad is connected. After connecting a mouse or keyboard with trackpad, you can change the colour of the mouse pointer and adjust its size, among other things.

In the Settings app, under 'Accessibility' at the very bottom, you can use 'Share Accessibility Settings' to ensure that your settings are synchronized with other iOS devices. You can also share your settings with someone else via AirDrop.



13 Magnifier

The pre-installed Magnifier app turns the device's camera into an electronic magnifier. We recommend using a portable stand to prop up the device.

13.1 General functions

When the magnifier is active, depending on which controls have been added via Settings and the green plus sign, you can use the slider to adjust the magnification, set activities (flower icon), switch between the front and rear cameras (camera icon), adjust the brightness (sun icon), adjust the contrast (circle, half black and half white), set various false colours (icon with three circles), activate focus lock (lock icon), change the capture mode between a single photo, multiple photos or documents (icon with two rectangles) and switch on the LED light (torch icon). Furthermore, under 'Filter' in the settings (cog icon), you can specify which colour anomalies should appear in the selection list.

The 'Capture' button allows you to freeze the image. Here, you can choose between one or more images using the capture mode (icon with two rectangles one above the other). Unlike the normal camera function, the images are not saved to the photo library.

13.2 Detect mode

The magnifier has a recognition mode that allows users to interact with physical objects by pointing at them.

This mode must first be activated.

Launch the Magnifier, then tap the small cog icon 'Settings', select 'Detect', enable 'Show in Control Panel', and, if necessary, use the small arrow on the right to adjust individual settings for each recognition mode. For example, you can set the distance for each mode. The recognition mode is then displayed in the Magnifier's control panel labelled 'Detect'. By holding down the button for a little longer, you can view all detect modes and switch between them.

The following detect modes are available:

Scenes

Image descriptions provide a live description of the scenes recognised in the camera view.

People (devices with a LiDAR scanner only)

The device can use sounds and speech to alert you when it detects people nearby. The closer the person is, the more frequent the feedback.

Doors (devices with a LiDAR scanner only)

The device can use sounds, speech and haptic feedback to alert you when it detects doors nearby. The closer the door is, the more frequent the feedback.



Furniture (devices with a LiDAR scanner only)

The device can identify pieces of furniture and provide real-time feedback via sounds, speech and haptic feedback on how far away the item is. It also recognises and indicates whether a chair or sofa is still free.

Text

Use the device's camera to have nearby recognised text read aloud or to read it yourself.

Point & Speak

Point at a specific section of text or move your index finger within the camera view. The device recognises the text near your finger and reads it aloud.

For all detection modes

Double-tap the screen with two fingers to pause detection.

13.3 Asking questions

Go to 'Settings', 'Ask Magnifier', and enable 'Show in Control Panel' to display the control. The magnifier can now recognise visual information from the surroundings and describe it in natural language.

13.4 Recognising and having documents read aloud

If 'Documents' has been selected via the 'Capture Mode' button (icon with two rectangles one above the other), the Magnifier automatically attempts to recognise the edges of a document and then takes a scan. Using the 'Reader' button now displayed at the bottom right, the recognised text can be displayed in a separate window and, if required, read aloud. The desired font size and contrast are set within the Accessibility Reader itself (see section 4). The document scan is not saved on the device.

13.5 Activities

The 'Activities' button (flower icon) allows you to save a specific combination of settings and recall them quickly. For example, as described in section 13.4, you could switch the capture mode to 'Documents' and also activate the torch. You could then save this as a new activity, for example with the name 'Recognise document'. When you call it up later, the device will automatically switch to the correct capture mode and also switch on the torch. To ensure a reliable return to the default settings (torch off, photo capture mode, etc.), it is advisable to save this as an activity too, for example under the name 'Default'.



14 Text and picture recognition via the camera

14.1 Text recognition

The new Livetext function uses on-device intelligence to recognize text in a photo and enable users to perform certain actions. For example, you can take a photo of the telephone number of a defective ticket machine and dial it directly, recognize and copy the WLAN password in a café, convert currencies or have text translated. When you start the camera, there is a new, small symbol at the bottom right of the live image that looks like a piece of paper with writing on it. If you tap on it, the text is recognized in the live image. At the same time, a context menu opens from which you can select, among other things, "Copy" or "Read aloud". For the latter item, the corresponding function must have been activated beforehand (see 9.2).

Another option, which is very interesting in its approach, is to open the Notes app, create a new note and then tap on the camera icon:

- Under the menu item "Scan document", the camera automatically takes a photo as soon as the corners of a whole page are in the camera section. You can then tap the photo created in this way at the bottom left and select "All" via the context menu (hold your finger down on the screen a little longer). Now the entire text of the document is marked and can be read out or copied and pasted elsewhere.
- Under the menu item "Recognise Text", the text of a document is inserted directly into the notes without having to take a photo first. However, paragraphs followed by blank lines are recognised and usually only the text between two blank lines is automatically selected for recognition. So far, this makes it impossible to capture an entire document at once.
- With the "Camera" tab in the Translate app, you can take a photo of text that will be translated directly. You must first ensure that the correct language pair is set, e.g. German - English. If English text is then recognised in the picture, it is translated into German and vice versa.

Livetext is only available on iOS devices with an A12 Bionic chip or newer, i.e. devices launched in 2018 or later.

14.2 Picture Recognition

Plants, animals, landmarks, etc. can be identified with visual look-up: If you tap on a motif in a picture and hold it down, you can select "Look up" for further information.

14.3 Live Recognition

Live Recognition enables the iPhone/iPad to describe objects in its surroundings using AI.

Live Recognition can be activated in various ways:



- on compatible iPhone models, via the Action Button (Settings – Action Button – Accessibility – Detection Mode)
- by tapping the back of the iPhone (Settings – Accessibility – Tap – Tap Back – Accessibility – Live Recognition)
- by adding it to a triple-click on the Side or Home button (Settings – Accessibility – Shortcuts – Live Recognition)

In all three cases, the magnifier control panel appears, allowing you to ask further questions using the 'Ask' button.

If you want to access Live Recognition quickly, without the option to ask questions and without an additional window appearing, you can also assign the following function to the Action Button:

Settings – Action Button – Accessibility – Describe Scene

Now, holding down the Action Button for a little longer will describe the surroundings. Holding down the Action Button again for a little longer will stop the description.



15 Tips for rehabilitation specialists

15.1 Support for USB sticks

For devices with USB-C connection a USB stick can be used (recommendation see 17.7). Via the in iOS integrated "Files" app (blue folder symbol), files can be opened directly from the stick or files can be saved directly to the stick via other apps such as "Pages" using the corresponding menu command (e.g. "Export").

15.2 Audio Sharing

According to Apple, two pairs of AirPods can be paired with an iPhone. This makes it possible, for example, to listen in on the trainee during training sessions with navigation apps.



16 Selection of apps

This section presents some useful apps for people with visual impairments and for blind people in Germany and Switzerland, which in some cases can partially or even completely replace an expensive additional device.

16.1 Auxiliary tools

Cash Reader, free for small notes, otherwise paid: This app recognises euro notes and many other foreign currencies, such as Swiss francs, pounds and dollars, reliably and in a flash via the iPhone's camera. All you have to do is hold the iPhone's camera close to the note and it will tell you the value and currency.

OneStep Reader (formerly knfb Reader), paid: This app converts a photographed document, a leaflet, a street sign, etc. into editable text in seconds, which can then of course be read aloud.

Cheap and good alternative: **Voice Dream Scanner**

Free alternative: **TextGrabber, Seeing AI, Envision**

ColorVisor, paid: In good lighting conditions, this app can recognise and announce colours. Of course, the app does not come close to a colour recognition device, but you only pay a fraction of the price and always have colour recognition in your pocket.

free alternatives: **Seeing AI, Envision, Seeing Assistant Home**

Tile: This app comes together with small trackers for keys, wallets or items such as remote controls. The trackers themselves are available in online shops. The iPhone connects to the tracker via Bluetooth. Using the app on the iPhone, the object connected to the tracker can then be located acoustically at the touch of a button. Conversely, depending on the model, the iPhone can also be located by pressing the tracker.

Alternative: **Apple AirTag** (only works with iOS devices and attachment option must be purchased separately; but extended search options via Apple Community).

Magnifier (Apple), free: With this app, you have an electronic magnifying glass in your pocket. However, you need a very steady hand or a stand to be able to read a menu in a restaurant, for example.

Be My Eyes, free: The app connects blind or visually impaired users with sighted volunteers who can then provide them with assistance via a real-time video or audio connection.

Wasserwaage Pocket (Bubble Level), free: The spirit level can be calibrated quickly, is easy to use and the basic function is VoiceOver-compatible. A sound informs whether an object is properly aligned.

Light Detector, free: Shows via pitch change whether a light source is switched on in the vicinity and with what intensity it shines. VoiceOver can be used to read out the displayed percentage.

Alternative: **Seeing Assistant Light**



Lux Light Meter Pro (in the App Store Belichtungsmesser Pro), paid: Easy-to-use light intensity meter (lux) to objectively measure light conditions in the environment.

Zuzanka, paid, trial version free of charge: Detect and announce the expiry date of a product via the smartphone camera.

Google Assistant, free: An alternative to Siri, the personal voice assistant.

16.2 Artificial Intelligence

Seeing Assistant Magnifier, free: With this app you have an electronic magnifier in your pocket. However, you need a very steady hand or a stand to be able to read a menu in a restaurant, for example. To use the app, you can place the iPhone in a small, foldable magnifier stand.

Alternative: **Magnifier from iOS**

Seeing AI, free: The free app combines text recognition in signs, text recognition of entire documents, barcode scanning with subsequent product announcement, face recognition (after training also with names), banknote reader (6 currencies, including Euro, no CHF), scene recognition, colour recognition, handwriting recognition and light source recognition under one interface. However, unlike other apps, all images are not processed on the user's own device, but online on Microsoft servers in the USA.

Envision, free: The free app combines text recognition of short texts, text recognition of entire documents, barcode scanning with subsequent product announcement, person recognition (after training also with names), scene recognition and colour recognition under one interface. The "Find object" function is very useful. There you can store favourites and then use the iPhone camera to search specifically for an object, e.g. the washbasin in an unfamiliar toilet. The information recorded via the camera is primarily processed on European server locations of the Dutch company.

Visionaut, paid app: Developed by a blind person, this app combines, within a single interface, scene descriptions with features such as the ability to ask questions, search for objects, a photo assistant, text recognition (including offline) for short texts, and the ability to recognise banknotes and sheet music. A free demo version is available.

Gemini, free: much like the better-known ChatGPT app, this Google app can be used to obtain all sorts of information. However, unlike ChatGPT, there is no daily limit and no adverts. Using the Apple Shortcuts app, you can create a Gemini shortcut to place a shortcut on your home screen, allowing you to launch the app directly in voice mode.

Alternative: **ChatGPT** and others



16.3 Reading/Listening/Recording

NetNewsWire, free: RSS reader with which you can get news on your iOS device. The app can thus be used like a daily newspaper, is simply structured and fully VoiceOver compatible.

Preview (Apple), free: preview documents including PDFs and convert them into other formats.

Voice Dream Reader, paid: (pre-)read documents including pdfs; the text wrap function and versatile configurable view settings make it easy to read files in large print. In addition, by double-tapping on any text passage, it is possible to read it aloud from there.

Downcast, paid: With this app, podcasts can be subscribed to and conveniently listened to on the iPhone. This app is also fully VoiceOver compatible.

Greta, free: Audio description in the cinema

Earcatch, free: Audio description in the cinema

Just Press Record, paid: Record and save in mp3 format directly in the iCloud. In addition, voice memos can be converted into editable text!

Speechy, paid: Record and convert to text at the same time. The app uses Apple's speech recognition, but in contrast to iOS's own function, the recognition does not simply stop when longer texts are spoken. Texts can be easily inserted into an email via copy and paste, for example.

iRecorder (Apple), free: Record and, starting with the iPhone 16 Pro, convert to text at the same time.

Translate (Apple), free: Translator app with voice input. Translates individual words as well as entire sentences using a predefined language pair. The finished translation can be read aloud using a button with the correct voice output.

Calculator (Apple), free: Calculator with large numbers, especially on the iPad. The button at the bottom left with the small calculator symbol can be used to switch to a scientific calculator.

TypeAI, free/paid: The app can be integrated into the on-screen keyboard and can be used to correct typed text at any point, suggest wording or translate the text directly.

Free alternative: Apple Intelligence

Punkt Journal, free/paid: A diary app in which the developers have placed particular emphasis on accessibility with VoiceOver. The app has also been programmed to be accessible for visual use. In addition to good contrast and font size adjustment, the content can be reduced to the essentials.

Free alternative: Journal by Apple (from iOS 26)

Sprachlabel, free: Create your own speech labels and read them with the app – NFC or barcode.

Braille Trainer, free: Blista has developed this free app, which allows you to practise and improve your Braille skills, including contracted Braille.



16.4 Navigation/Mobility

VoiceVista, free/paid: The app is based on Microsoft's discontinued open-source Soundscape project and uses spatial audio combined with iOS location services to create a mental map of an unfamiliar route. In addition to the current running direction, the app provides information about POIs, intersections and cross streets, bus stops and other points of interest nearby. The amount of information can be limited.

Alternatives: Soundscape

WaveOut, free: This app is similar to VoiceVista, but places even greater emphasis on navigation.

MyWay Pro, paid: An app developed for blind users that allows, among other things, the recording of routes. In recording mode, waypoints can be generated manually or automatically when changing direction. The route created in this way can be saved under any name and later retrieved for both directions.

Free alternative: **Seeing Assistant Move**

BlindSquare, paid: The app offers numerous navigation and orientation tools for blind and visually impaired people. For example, it provides information about so-called points of interest (POI) that are located in the immediate vicinity. In combination with a navigation app such as GoogleMaps, you get a navigation solution suitable for everyday use.

Moovit, free: App for navigation in public transport. A special feature: the current stops of the means of transport the user is on can be announced in real time. The app works in many countries, but unfortunately only in selected, mostly large cities.

AroundMe: Shows what is nearby, sorted by category, such as "ATM" or "supermarket", including exact address and distance information. Navigation must be done via a separate app.

Compass (Apple), free: The app is pre-installed on the iPhone and becomes a talking compass in combination with VoiceOver.

Alternative: Compass°

Ampel-Pilot, free: recognises the switching of the pedestrian lights via the camera

NaviLens Go, free: The app reads special, colourful QR codes using a smartphone camera. The app can recognise a NaviLens code measuring just 20 square centimetres from a distance of up to twelve metres and from different angles. The QR codes can be used to receive voice instructions in real time, e.g. for orientation in the station.



16.5 Raising awareness

Vision(s), free: This app provides clear information about various eye diseases and simulates them using the camera.

CVSimulator, free: This app simulates various colour vision deficiencies. The app is only available in English.

16.6 Country-specific apps

16.6.1 Germany

ÖPNV Navigator, free: Among other things, the app shows all stops in the vicinity with exact distances. By tapping on a stop, you get more detailed information about lines and departure times. Tapping on a line provides information about all the stops that are served. The app works everywhere in Germany and - since it also works without problems in Switzerland - probably also in other European countries.

dzb lesen, free: DZB e-book and audio book app

Intros, free: Developed by the Swiss Association for the Blind and Visually Impaired, this app helps blind and visually impaired people identify the correct vehicle at bus stops. This is particularly helpful when several public transport lines stop at the same station. Once on board, users can also use the app to request their desired stop. The system has been adopted in Saarbrücken, Kiel and Berlin in Germany, and in Schaffhausen in Switzerland.

LOC.id, free: The app communicates via Bluetooth in a wide variety of areas, e.g. with traffic lights, lifts or passenger information in public transport. The app searches the user's smartphone for suitable applications for the current situation and activates them directly.

Katwarn or NINA, free: current hazard, storm and disaster warnings directly to your mobile device

16.6.2 Switzerland

Time for Coffee and Stations, free: Both apps provide clear information about the departures of trains, buses and trams in the vicinity, including delays.

Wemlin, free: Timetables for the cantons of St. Gallen, Appenzell, Glarus, Thurgau and Schaffhausen (OSTWIND), for Zurich, Schaffhausen and Winterthur (ZVV), for Basel Land (BLT), for Freiburg (TPF) and for Liechtenstein (LIEmobil)

SBB Inclusive, free: The app supports rail passengers with restrictions.

Intros, free: Developed by the Swiss Association for the Blind and Visually Impaired, this app is designed to help blind and visually impaired people identify the correct vehicle at bus stops. Schaffhausen was the first city to decide to use the system at the beginning of 2025.



Recunia, free: This app uses the iPhone's camera to reliably recognise Swiss franc notes at lightning speed.

E-Kiosk, free: Various (chargeable) newspapers can be subscribed to and read conveniently via the SBC app.

SBS Reader Plus, free: e-book and audiobook app of the SBS

Apfelschule, free: Information and tips from the Swiss Association for the Blind about the iPhone.

SwissAlert, free: current hazard, severe weather and disaster warnings sent directly to your mobile device

16.7 Games especially for blind people

A Blind Legend, A Dark Room, Blindscape, Blindfold ** (a whole series of more than 20 audiogame apps), Audio Game Hub, Lords & Knights, Sound Of Magic (audiogame), Alt-Frequencies (audiogame), Frequency Missing (audiogame), Blowback (audiogame), Feer - Running Blind (audiogame), Subwords, Quizduell, Schredder Chess



17 Selection of accessories and additional equipment

17.1 Headphones

In road traffic, headphones are often disturbing or even dangerous. Therefore, when using the iPhone with VoiceOver or with apps that output information via speech, it is recommended to use so-called **bone conduction headphones**. These are available, for example, from the company **Shoks** or from the company **Grundig**. A relatively expensive variant, but with excellent sound quality, is the **Bose Frames** sunglasses with integrated bone conduction headphones and the **Dusk Elektrochrome Smart sunglasses**, where the tint of the lenses can also be changed via an app.

17.2 AI glasses

There is a whole range of AI glasses on the market. The best-known model at present is the Meta glasses, which are available in various versions. The price differences are, in some cases, considerable. The Wayfarer model, sold under the Ray-Ban brand name, costs around 560 CHF in Switzerland for version 3, for example, whilst the Adventurer model – which is (almost) identical in construction but without Ray-Ban branding – costs just 270 CHF. So if you can do without the branding, you'll save a lot of money. Both models have internal flash memory, even though this is only explicitly mentioned for the Ray-Ban model, and both models have a dedicated button on the temple from which you can access the AI.

Although AI glasses can be helpful, one should approach the current hype with caution. The AI running in the background (still) suffers from the same issues as all other models and is prone to making things up. For instance, during a test at St. Gallen railway station, whilst the bus display board was read out to me seemingly correctly, a line was added that didn't actually exist. With the Post bus signs featuring yellow lettering, the camera/AI struggled to recognise them and gave me incorrect information about the bus's destination. With the St Gallen buses, which have black lettering on a white background, the information was correct, however. As a blind person without the ability to visually verify the information, one should therefore not rely solely on the AI's output.

17.3 Protective cover

The **LifeProof Case** is a shockproof and waterproof protective case for the iPhone, which is suitable for use in the rain, for example. A loop can also be attached to the **Redpepper** protective case, which is also waterproof and somewhat cheaper, so that the iPhone can be hung around the neck, for example.



17.4 Anti-reflective protective film

I can recommend the **Dipos** brand as durable screen protectors that do not impair the operation of the touchscreen. The **matt** finish prevents annoying reflections on the display and also protects against scratches.

17.5 Navigation belt

The vibrating **naviBelt** from **feelSpace** can be worn inconspicuously under clothing and reliably indicates changes in direction. The vibration travels along the body according to the change in direction. Navigation is also possible via the associated app.

17.6 Smartphone and tablet stand

TabiMax offers a flexible solution for using a smartphone or tablet PC in a **stand**. This makes it easy to use the magnifying glass function or a text recognition app. Less expensive alternatives are the **Belkin Portable Tablet Stage** and the **NWW Scandi, which is** only suitable for smartphones.

17.7 Keyboard with XXL lettering

From **Logic-Keyboard** there are **Bluetooth large character keyboards** with high-contrast XXL lettering in black, white or yellow.

17.8 Storage device for iPads with USB-C connector

USB stick **Sandisk Ultra Dual Drive Luxe** with conventional USB connection and new USB-C connection; works directly connected to the iPad as a storage medium.

17.9 Rechargeable credit-card-sized tracker

The Lithuanian-American company Ondrela sells Bluetooth trackers that are the size of a credit card and only slightly thicker, meaning they fit easily into a wallet. Setting them up is very simple and is done via Apple's 'Find My' app. No separate app is therefore required to use them. The key feature of these trackers is that the built-in battery can be charged wirelessly using a Qi charging pad or a MagSafe charger. This eliminates the need for fiddly battery changes or even having to dispose of the entire tracker, as is the case with other models.

Alternative: AirTag von Apple



17.10 Talking household appliances

The Danish company IKONN, or Unwired Things ApS, manufactures useful, talking household appliances, such as bathroom scales, kitchen scales, measuring tapes, colour recognition devices, weather stations and thermometers. The devices can be controlled either via a haptic controller (sold separately) or, at no extra cost, via the myIKONN app. Some of the devices boast innovative features. For example, the tape measure allows you to easily measure the circumference of an object using a small hooking function.