



## Web Content Accessibility Guidelines (WCAG) 2.2 Audit

### Tella app iOS

<https://apps.apple.com/us/app/tella-document-protect/id1598152580>

Period of Performance - 16 September 2023 to 14 November 2023

#### Testing video with screen reader

A blind user tested the website/app with a screen reader and record the user experience thinking out loud to share internal thoughts about his/her perception of accessibility:

[Tella iOS testing with VoiceOver \(image blocked\)](#)

\*Some parts are black due to security policy that prevents screenshots and video recording.

More testing videos:

[Tella testing with iOS1](#)

[Tella testing with iOS2](#)

[Tella testing with iOS3](#)

#### Accessibility Audit Methodology

This document is an Accessibility Audit of the platform according to the international standard Web Content Accessibility Guidelines 2.2 (WCAG 2.2), which is divided into four principles (Perceivable, Operable, Understandable and Robust), thirteen guidelines that contains requirements (success criteria) and three levels of conformance A, AA and AAA.

- **A** – the minimum level of compliance (critical for all)
- **AA** – the intermediate level (essential) (requirement for governments and telecom operators)
- **AAA** – the highest level of compliance (essential for some)

The purpose of this document is that designers and developers can recognize and implement the necessary changes to comply 100% with accessibility. Our main objective is to ensure that our Accessibility Audit is clear and actionable.

In this document we evaluate each requirement to indicate the following:

- "**Not applicable**" (gray color): The requirement is not applicable; therefore, it is not evaluated.
- "**Comply**" (green color): the requirement is applicable, so it is evaluated and the result is satisfactory compliance.



- "**Does not comply**" (red color): the requirement is applicable, so it is evaluated and the result is non-compliance. In this case, we explain the reasons for non-compliance and the recommendation to follow.

Each accessibility barrier is classified in their corresponding requirement. Sometimes, we find one content that fails several requirements, on these cases, we classify the recommendation in the most important or representative requirement. And we only add a reference number in the other related requirements that the content is failing too. This way we do not repeat the same feedback in different requirements.

The assessment structure respects the WCAG 2.2 standard in order to facilitate the search for more information related to each requirement number.

We recommend to use the Microsoft Word's Navigation Pane (View Tab>Navigation Pane checked).

Manual and automatic tests (screen reader and only keyboard tests) were carried out in the evaluation process, including testing with people with disabilities.

Once the audit is delivered, the development team can have a guide to know what modifications need to be made, understand the current accessibility status of the platform, define priorities based on compliance level A, AA, or AAA, and implement the recommended changes.

Finally, when recommendations are implemented, the content provider can have the following acknowledgments:

- **Accessibility Statement.** A powerful declaration of commitment which is normally available in the footer via a link and includes information about the platform's accessibility.
- **Add the W3C Conformance logo.** The platform indicates a claim of conformance to a specified conformance level of the Web Content Accessibility Guidelines 2.1 [W3C](#), could be level A, AA or AAA.

## Assistive technologies

Assistive technologies are software or equipment that people with disabilities use to improve interaction with the web, such as screen readers that read aloud web pages for people who cannot read text, screen magnifiers for people with some types of low vision, and voice recognition software and selection switches for people who cannot use a keyboard or mouse.

## Getting started testing with mobile screen readers

One of the most widely-used assistive technologies are screen readers. This is [TalkBack](#) in Android and [VoiceOver](#) in iOS.

### Mobile testing

Ensuring your app is usable by blind users. Turn on your platform's Screen Reader.

Open the application and navigate to the screen you want to test.

- **Drag one finger** over the screen to explore the interface and hear the screen reader speak what's under your finger.
- **Single tap** brings a button or link in focus (so you know what it is).
- **double tap** activates the control.
- **2 or 3 finger horizontal flick** is the equivalent of a regular swipe.



- **2 or 3 finger vertical flick** scrolls the screen up or down.

*Try closing your eyes and experience the application the way a blind user would.*

## Remediation

Once the Accessibility Audit is on hand, the tool team needs to prioritize and decide what to fix first? There is a formula where the team can analyze priorities.

- Severity of the issues
  - Critical, breaking.
  - Medium, not breaking, still technically a WCAG failure.
  - Low, best practice but not really a failure.
- Number of pages that have the issue (serious -once- or moderate -100-)
- Traffic of those pages (with Google Analytics)
- Bump of certain page
- Things important to the team
- Level of effort to fix
- Specific issue type than can be quickly resolve (track the quick fixes first)

Working in sprints in a set period of time (phases) can be a good methodology to organize the Scope of Work, this can be a list of tasks to implement according to priorities.

Let us know about your commitments, challenges and accessibility implementation process.

We are looking forward to help you in the process of becoming accessible and don't forget to share it with the world on social media.

**Congratulations! Digital accessibility is a huge step in your organization.**

*"Don't wait until you reach your goal to be proud of yourself. Be proud of every step you take"*

# 1. Principle: Perceivable

## 1.1. Guideline: Text Alternatives

**1.1.1. Non-text Content:** All non-text content that is presented to the user has a text alternative that serves the equivalent purpose, except for the situations listed below.

- **Controls, Input:** If non-text content is a control or accepts user input, then it has a name that describes its purpose.
- **Time-Based Media:** If non-text content is time-based media, then text alternatives at least provide descriptive identification of the non-text content.



- **Test:** If non-text content is a test or exercise that would be invalid if presented in text, then text alternatives at least provide descriptive identification of the non-text content.
- **Sensory:** If non-text content is primarily intended to create a specific sensory experience, then text alternatives at least provide descriptive identification of the non-text content.
- **CAPTCHA:** If the purpose of non-text content is to confirm that content is being accessed by a person rather than a computer, then text alternatives that identify and describe the purpose of the non-text content are provided, and alternative forms of CAPTCHA using output modes for different types of sensory perception are provided to accommodate different disabilities.
- **Decoration, Formatting, Invisible:** If non-text content is pure decoration, is used only for visual formatting, or is not presented to users, then it is implemented in a way that it can be ignored by assistive technology.

Level	Compliance 1.1.1.
A	Yes

## 1.2. Guideline: Time-based Media

### 1.2.1. Audio-only and Video-only

**(Prerecorded):** For prerecorded audio-only and prerecorded video-only media, the following are true, except when the audio or video is a media alternative for text and is clearly labeled as such:

- **Prerecorded Audio-only:** An alternative for time-based media is provided that presents equivalent information for prerecorded audio-only content.
- **Prerecorded Video-only:** Either an alternative for time-based media or an audio track is provided that presents equivalent information for prerecorded video-only content.

Level	Compliance 1.2.1.
A	Does not apply

**1.2.2. Captions (Prerecorded):** Captions are provided for all prerecorded audio content in synchronized media, except when the media is a media alternative for text and is clearly labeled as such.

Level	Compliance 1.2.2.
A	Does not apply



**1.2.3. Audio Description or Media Alternative (Prerecorded):** An alternative for time-based media or audio description of the prerecorded video content is provided for synchronized media, except when the media is a media alternative for text and is clearly labeled as such.

Level	Compliance 1.2.3.
A	Does not apply

**1.2.4. Captions (Live):** Captions are provided for all live audio content in synchronized media.

Level	Compliance 1.2.4.
AA	Does not apply

**1.2.5. Audio Description (Prerecorded):** Audio description is provided for all prerecorded video content in synchronized media.

Level	Compliance 1.2.5.
AA	Does not apply

**1.2.6. Sign Language (Prerecorded):** Sign language interpretation is provided for all prerecorded audio content in synchronized media.

Level	Compliance 1.2.6.
AAA	Does not apply

**1.2.7. Extended Audio Description (Prerecorded):** Where pauses in foreground audio are insufficient to allow audio descriptions to convey the sense of the video, extended audio description is provided for all prerecorded video content in synchronized media.

Level	Compliance 1.2.7.
AAA	Does not apply

**1.2.8. Media Alternative (Prerecorded):** An alternative for time-based media is provided for all prerecorded synchronized media and for all prerecorded video-only media.

Level	Compliance 1.2.8.
AAA	Does not apply



1.2.9. **Audio-only (Live):** An alternative for time-based media that presents equivalent information for live audio-only content is provided.

Level	Compliance 1.2.9.
AAA	Does not apply

### 1.3. Guideline: Adaptable

1.3.1. **Info and Relationships:** Information, structure, and relationships conveyed through presentation can be programmatically determined or are available in text.

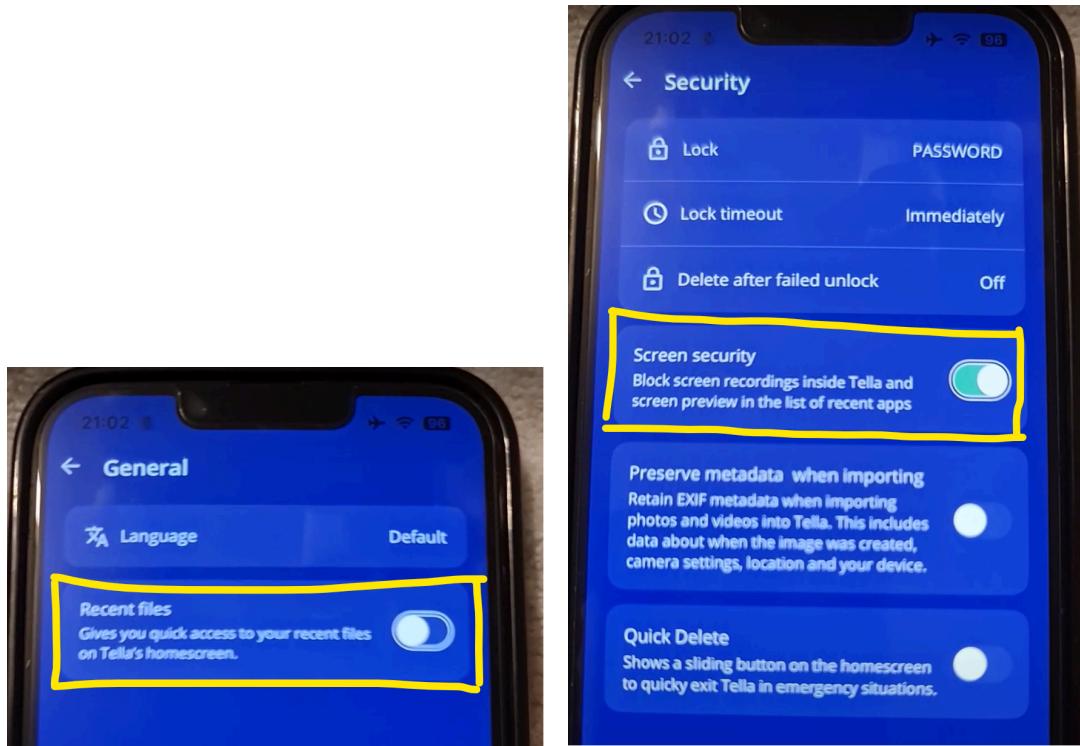
Level	Compliance 1.3.1.
A	No

Components designed for On/Off like behaviors MOBILE

A Switch allows a User Interface to cleanly express a binary (Yes/No) decision. This is most closely associated with a settings page or toggling a bit of UI State.

It looks like the switch buttons are separate from their label.

Same logic in other switches.



iOS UISwitch Controls information

VoiceOver Announcement: "Bedroom Lights, On {PAUSE} Double tap to toggle setting."

```
// Basic UITextField Accessibility Markup
bedromLightsSwitch.accessibilityLabel = bedroomLightsLabel.text;
// Best Practice
container.shouldGroupAccessibilityChildren = true;
```

- **ClassName** - UISwitch is the Role for this component.
  - Causes the "Double tap to toggle setting" announcement.
  - Shares its current State for you!
  - Needs an accessibilityLabel to share its Name.
- **Accessibilitylabel** - "Bedroom Lights"

**1.3.2. Meaningful Sequence:** When the sequence in which content is presented affects its meaning, a correct reading sequence can be programmatically determined.

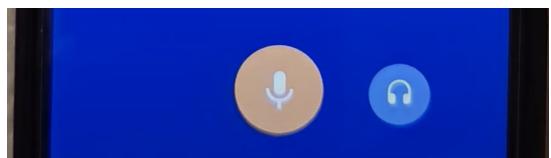
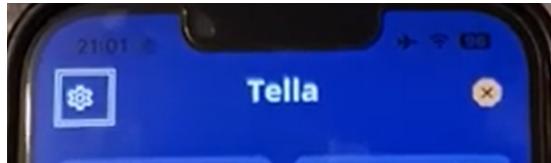
Level	Compliance 1.3.2.
A	Yes

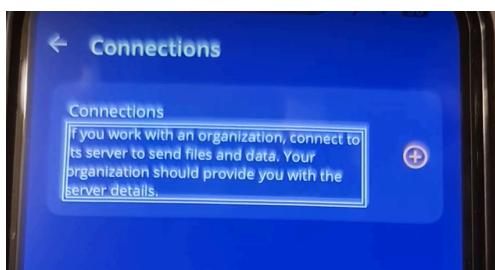
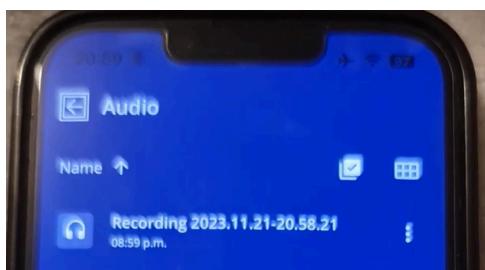
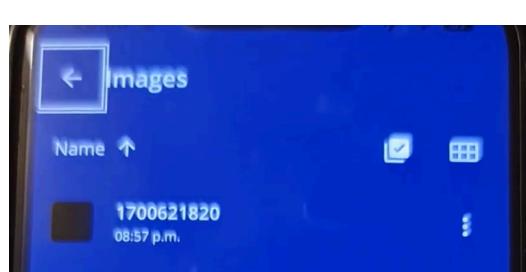
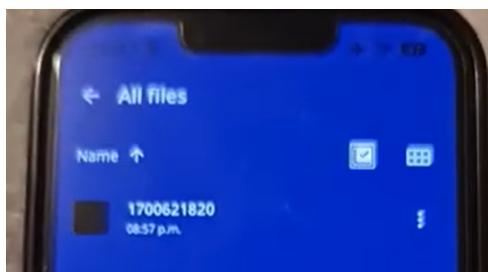
**1.3.3. Sensory Characteristics:** Instructions provided for understanding and operating content do not rely solely on sensory characteristics of components such as shape, size, visual location, orientation, or sound.

Level	Compliance 1.3.3.
A	No

The intent of this Success Criterion is to ensure that all users can access instructions for using the content, even when they cannot perceive shape or size or use information about spatial location or orientation.

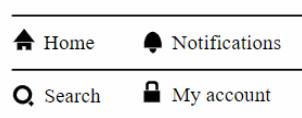
While using shape, if possible, provide visible label/name to the control.





Similar logic in other icons.

For example:





Home

Passwords

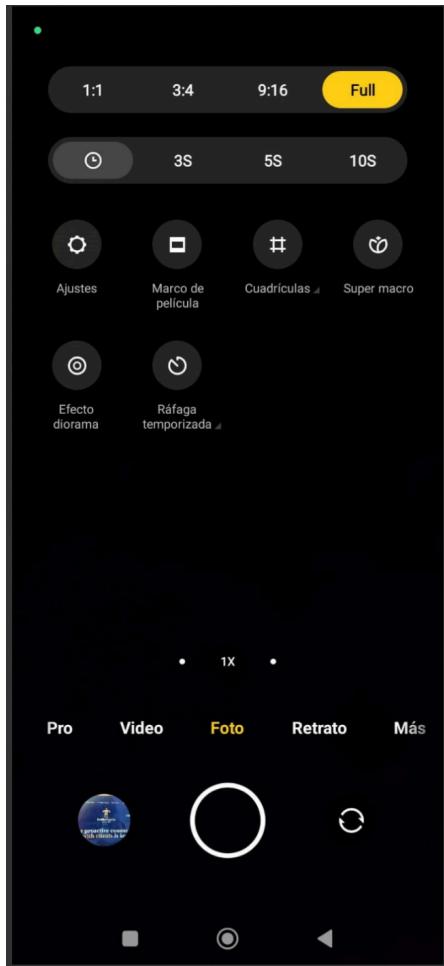
Mail Settings

Invites

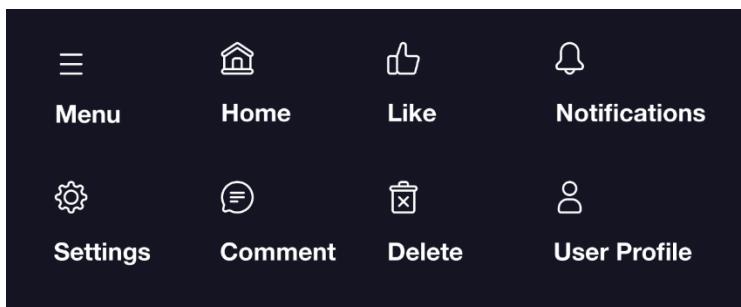
Change Username

Close Account

Purge Data



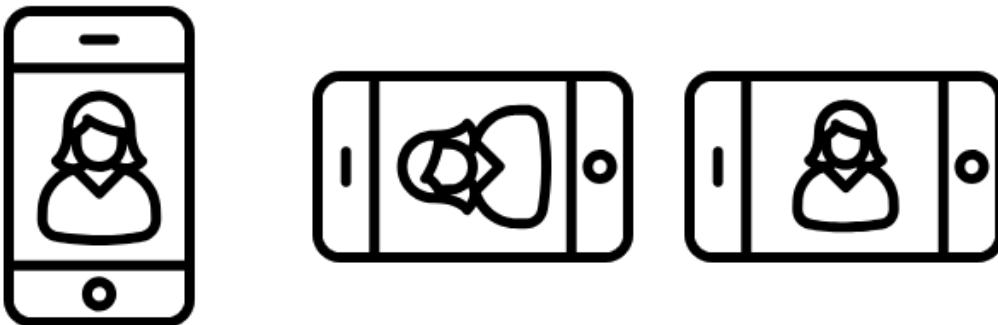
Examples from [How to Use Icons in Design: UX and UI Best Practices](#):



**1.3.4. Orientation:** Content does not restrict its view and operation to a single display orientation, such as portrait or landscape, unless a specific display orientation is essential.

Level	Compliance 1.3.4.
AA	No

The intent of this Success Criterion is to ensure that content displays in the orientation (portrait or landscape) preferred by the user. Some websites and applications automatically set and restrict the screen to a particular display orientation and expect that users will respond by rotating their device to match, but this can create problems. Some users have their devices mounted in a fixed orientation (e.g. on the arm of a power wheelchair). Therefore, websites and applications need to support both orientations by not restricting the orientation.



**1.3.5. Identity Input Purpose:** The purpose of each input field collecting information about the user can be programmatically determined when:

- The input field serves a purpose identified in the Input Purposes for User Interface Components section; and
- The content is implemented using technologies with support for identifying the expected meaning for form input data.

Level	Compliance 1.3.5.
AA	Does not apply

**1.3.6. Identify Purpose:** In content implemented using markup languages, the purpose of User Interface Components, icons, and regions can be programmatically determined.

Level	Compliance 1.3.6.
AAA	Does not apply



## 1.4. Guideline: Distinguishable

**1.4.1. Use of Color:** Color is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

Level	Compliance 1.4.1.
A	Does not apply

**1.4.2. Audio Control:** If any audio on a Web page plays automatically for more than 3 seconds, either a mechanism is available to pause or stop the audio, or a mechanism is available to control audio volume independently from the overall system volume level.

Level	Compliance 1.4.2.
A	Does not apply

**1.4.3. Contrast (Minimum):** The visual presentation of text and images of text has a contrast ratio of at least 4.5:1, except for the following:

- **Large Text:** Large-scale text and images of large-scale text have a contrast ratio of at least 3:1;
- **Incidental:** Text or images of text that are part of an inactive user interface component, that are pure decoration, that are not visible to anyone, or that are part of a picture that contains significant other visual content, have no contrast requirement.
- **Logotypes:** Text that is part of a logo or brand name has no minimum contrast requirement.

Level	Compliance 1.4.3.
AA	No

The intent of this Success Criterion is to provide enough contrast between text and its background so that it can be read by people with moderately low vision (who do not use contrast-enhancing assistive technology). For people without color deficiencies, hue and saturation have minimal or no effect on legibility as assessed by reading performance (Knoblauch et al., 1991). Color deficiencies can affect luminance contrast somewhat. Therefore, in the recommendation, the contrast is calculated in such a way that color is

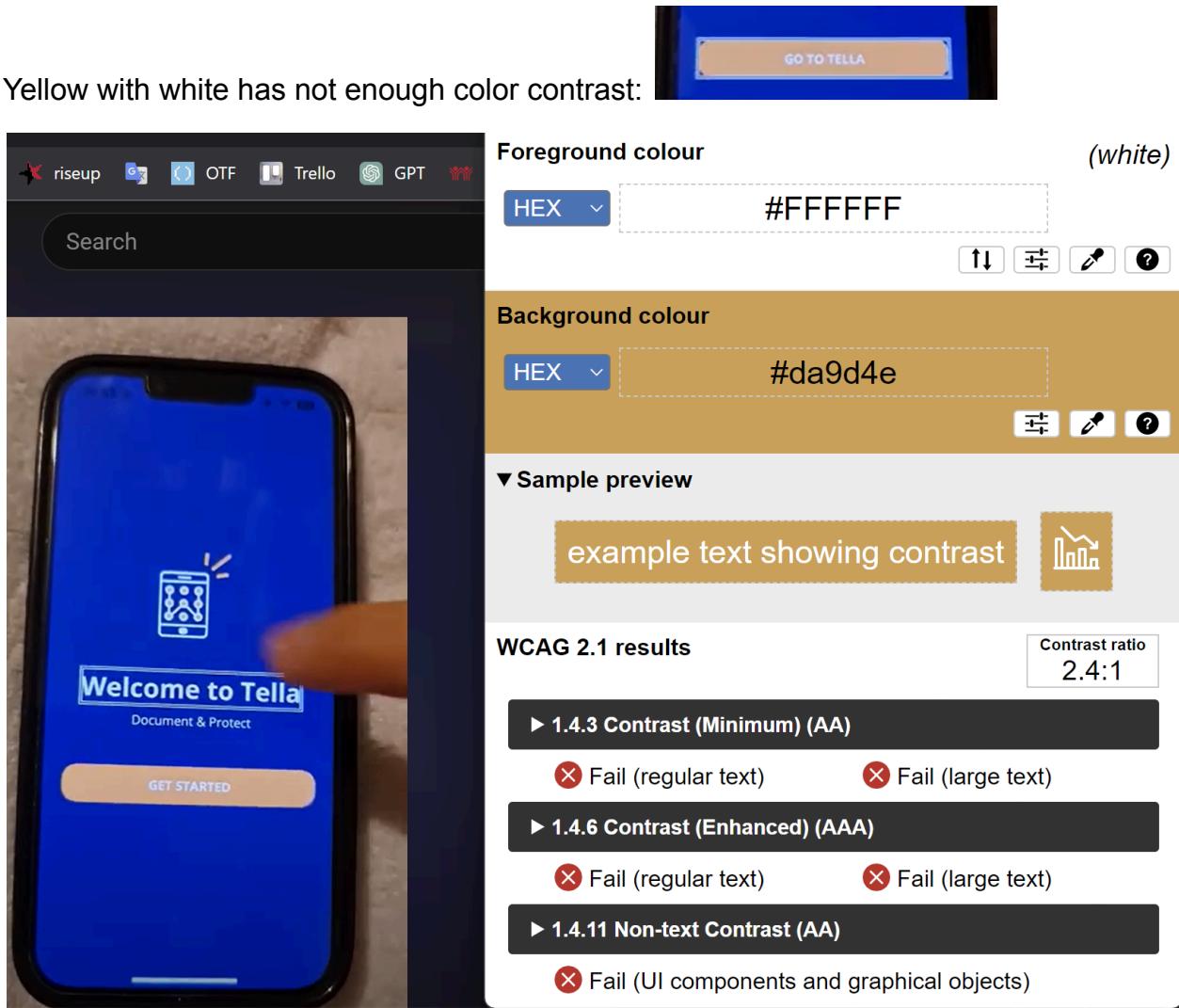
not a key factor so that people who have a color vision deficit will also have adequate contrast between the text and the background.

You can use one of these tools to validate any contrast.

[Colour Contrast Analyser](#)

[WebAIM Contrast Checker](#)

Yellow with white has not enough color contrast:



The screenshot shows the WebAIM Contrast Checker interface. On the left, there's a photograph of a smartphone displaying a blue screen with white text. A finger is pointing at the screen. On the right, the analysis results are displayed:

- Foreground colour:** (white) #FFFFFF
- Background colour:** #da9d4e
- Sample preview:** Shows the text "example text showing contrast" in white on a blue background.
- WCAG 2.1 results:**
  - 1.4.3 Contrast (Minimum) (AA): Fail (regular text), Fail (large text)
  - 1.4.6 Contrast (Enhanced) (AAA): Fail (regular text), Fail (large text)
  - 1.4.11 Non-text Contrast (AA): Fail (UI components and graphical objects)
- Contrast ratio:** 2.4:1

**1.4.4. Resize text:** Except for captions and images of text, text can be resized without assistive technology up to 200 percent without loss of content or functionality.



Level	Compliance 1.4.4.
AA	Yes

**1.4.5. Images of Text:** If the technologies being used can achieve the visual presentation, text is used to convey information rather than images of text except for the following:

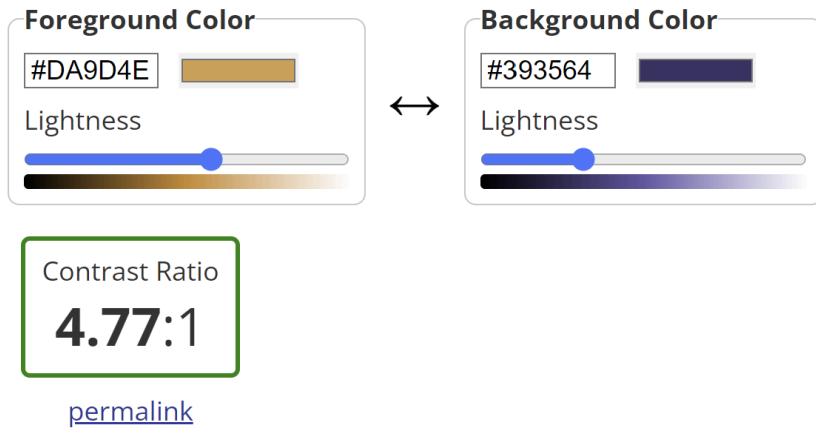
- **Customizable:** The image of text can be visually customized to the user's requirements;
- **Essential:** A particular presentation of text is essential to the information being conveyed.

Level	Compliance 1.4.5.
AA	Does not apply

**1.4.6. Contrast (Enhanced):** The visual presentation of text and images of text has a contrast ratio of at least 7:1, except for the following:

- **Large Text:** Large-scale text and images of large-scale text have a contrast ratio of at least 4.5:1;
- **Incidental:** Text or images of text that are part of an inactive user interface component, that are pure decoration, that are not visible to anyone, or that are part of a picture that contains significant other visual content, have no contrast requirement.
- **Logotypes:** Text that is part of a logo or brand name has no minimum contrast requirement.

Level	Compliance 1.4.6.
AAA	No



## Normal Text

WCAG AA: **Pass**  
WCAG AAA: **Fail**

The five boxing wizards jump quickly.

## Large Text

WCAG AA: **Pass**  
WCAG AAA: **Pass**

The five boxing wizards jump quickly.

## Graphical Objects and User Interface Components

WCAG AA: **Pass**

✓  
Text Input

**1.4.7. Low or No Background Audio:** For prerecorded audio-only content that (1) contains primarily speech in the foreground, (2) is not an audio CAPTCHA or audio logo, and (3) is not vocalization intended to be primarily musical expression such as singing or rapping, at least one of the following is true:

- **No Background:** The audio does not contain background sounds.
- **Turn Off:** The background sounds can be turned off.
- **20 dB:** The background sounds are at least 20 decibels lower than the foreground speech content, with the exception of occasional sounds that last for only one or two seconds.



Level	Compliance 1.4.7.
AAA	Does not apply

1.4.8. **Visual Presentation:** For the visual presentation of blocks of text, a mechanism is available to achieve the following:

1. Foreground and background colors can be selected by the user.
2. Width is no more than 80 characters or glyphs (40 if CJK).
3. Text is not justified (aligned to both the left and the right margins).
4. Line spacing (leading) is at least space-and-a-half within paragraphs, and paragraph spacing is at least 1.5 times larger than the line spacing.
5. Text can be resized without assistive technology up to 200 percent in a way that does not require the user to scroll horizontally to read a line of text on a full-screen window.

Level	Compliance 1.4.8.
AAA	Does not apply

1.4.9. **Images of Text (No Exception):** Images of text are only used for pure decoration or where a particular presentation of text is essential to the information being conveyed.

Level	Compliance 1.4.9.
AAA	Does not apply

1.4.10. **Reflow:** Content can be presented without loss of information or functionality, and without requiring scrolling in two dimensions for:

- Vertical scrolling content at a width equivalent to 320 CSS pixels;
- Horizontal scrolling content at a height equivalent to 256 CSS pixels.

Except for parts of the content which require two-dimensional layout for usage or meaning.

Level	Compliance 1.4.10.
AA	Yes

1.4.11. **Non-text Contrast:** The visual presentation of the following have a contrast ratio of at least 3:1 against adjacent color(s):

- **User Interface Components:** Visual information required to identify user interface components and states, except for inactive components or where the appearance of the component is determined by the user agent and not modified by the author;
- **Graphical Objects:** Parts of graphics required to understand the content, except when a particular presentation of graphics is essential to the information being conveyed.

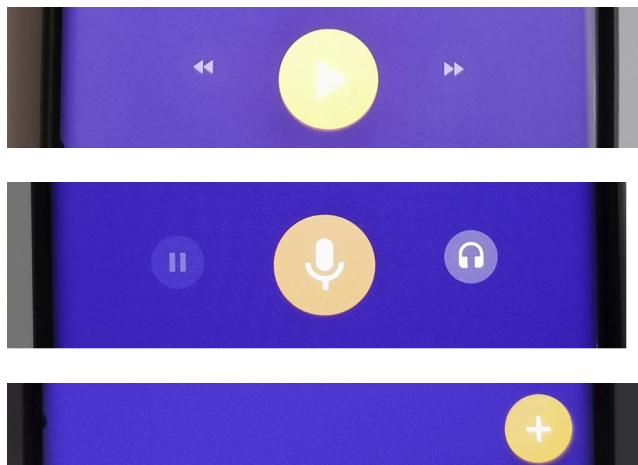
Level	Compliance 1.4.11.
AA	No

The intent of this Success Criterion is to ensure that active user interface components (i.e., controls) and meaningful graphics are distinguishable by people with moderately low vision.

Low contrast controls are more difficult to perceive and may be completely missed by people with a visual impairment.

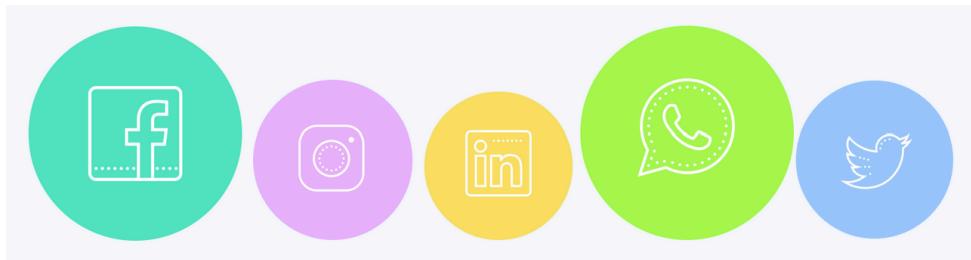
For active controls such as buttons, tabs, links, any visual information provided that is necessary for a user to identify that a control is present and how to operate it must have a minimum 3 to 1 contrast ratio with the adjacent colors.

Some icons with white and yellow contrast are not accessible (same as Android):



### Active User Interface Component Examples

For designing focus indicators, selection indicators and user interface components that need to be perceived clearly, the following are examples that have sufficient contrast:



1.4.12. **Text Spacing:** In content implemented using markup languages that support the following text style properties, no loss of content or functionality occurs by setting all of the following and by changing no other style property:

- Line height (line spacing) to at least 1.5 times the font size;
- Spacing following paragraphs to at least 2 times the font size;
- Letter spacing (tracking) to at least 0.12 times the font size;
- Word spacing to at least 0.16 times the font size.

Exception: Human languages and scripts that do not make use of one or more of these text style properties in written text can conform using only the properties that exist for that combination of language and script.

Level	Compliance 1.4.12.
AA	Yes

1.4.13. **Content on Hover or Focus:** Where receiving and then removing pointer hover or keyboard focus triggers additional content to become visible and then hidden, the following are true:

- **Dismissable:** A mechanism is available to dismiss the additional content without moving pointer hover or keyboard focus, unless the additional content communicates an input error or does not obscure or replace other content;



- **Hoverable:** If pointer hover can trigger the additional content, then the pointer can be moved over the additional content without the additional content disappearing;
- **Persistent:** The additional content remains visible until the hover or focus trigger is removed, the user dismisses it, or its information is no longer valid.

Exception: The visual presentation of the additional content is controlled by the user agent and is not modified by the author.

Level	Compliance 1.4.13.
AA	Does not apply

## 2. Principle: Operable

### 2.1. Guideline: Keyboard Accessible

2.1.1. **Keyboard:** All functionality of the content is operable through a keyboard interface without requiring specific timings for individual keystrokes, except where the underlying function requires input that depends on the path of the user's movement and not just the endpoints.

Level	Compliance 2.1.1.
A	Yes

2.1.2. **No Keyboard Trap:** If keyboard focus can be moved to a component of the page using a keyboard interface, then focus can be moved away from that component using only a keyboard interface, and, if it requires more than unmodified arrow or tab keys or other standard exit methods, the user is advised of the method for moving focus away.

Level	Compliance 2.1.2.
A	Yes

2.1.3. **Keyboard (No Exception):** All functionality of the content is operable through a keyboard interface without requiring specific timings for individual keystrokes.

Level	Compliance 2.1.3.
AAA	Yes

**2.1.4. Character Key Shortcuts:** If a keyboard shortcut is implemented in content using only letter (including upper- and lower-case letters), punctuation, number, or symbol characters, then at least one of the following is true:

- **Turn off:** A mechanism is available to turn the shortcut off;
- **Remap:** A mechanism is available to remap the shortcut to use one or more non-printable keyboard characters (e.g. Ctrl, Alt, etc);
- **Active only on focus:** The keyboard shortcut for a user interface component is only active when that component has focus.

Level	Compliance 2.1.3.
AAA	Does not apply

## 2.2. Guideline: Enough Time

**2.2.1. Timing Adjustable:** For each time limit that is set by the content, at least one of the following is true:

- **Turn off:** The user is allowed to turn off the time limit before encountering it; or
- **Adjust:** The user is allowed to adjust the time limit before encountering it over a wide range that is at least ten times the length of the default setting; or
- **Extend:** The user is warned before time expires and given at least 20 seconds to extend the time limit with a simple action (for example, "press the space bar"), and the user is allowed to extend the time limit at least ten times; or
- **Real-time Exception:** The time limit is a required part of a real-time event (for example, an auction), and no alternative to the time limit is possible; or
- **Essential Exception:** The time limit is essential and extending it would invalidate the activity; or
- **20 Hour Exception:** The time limit is longer than 20 hours.

Level	Compliance 2.2.1.
A	Does not apply

**2.2.2. Pause, Stop, Hide:** For moving, blinking, scrolling, or auto-updating information, all of the following are true:

- **Moving, blinking, scrolling:** For any moving, blinking or scrolling information that (1) starts automatically, (2) lasts more than five seconds, and (3) is presented in parallel with other content, there is a mechanism for the user

to pause, stop, or hide it unless the movement, blinking, or scrolling is part of an activity where it is essential; and

- **Auto-updating:** For any auto-updating information that (1) starts automatically and (2) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it or to control the frequency of the update unless the auto-updating is part of an activity where it is essential.

Level	Compliance 2.2.2.
A	Does not apply

**2.2.3. No Timing:** Timing is not an essential part of the event or activity presented by the content, except for non-interactive synchronized media and real-time events.

Level	Compliance 2.2.3.
AAA	Does not apply

**2.2.4. Interruptions:** Interruptions can be postponed or suppressed by the user, except interruptions involving an emergency.

Level	Compliance 2.2.4.
AAA	Does not apply

**2.2.5. Re-authenticating:** When an authenticated session expires, the user can continue the activity without loss of data after re-authenticating.

Level	Compliance 2.2.5.
AAA	Does not apply

**2.2.6. Timeouts:** Users are warned of the duration of any user inactivity that could cause data loss, unless the data is preserved for more than 20 hours when the user does not take any actions.

Level	Compliance 2.2.6.
AAA	Does not apply

## 2.3. Guideline: Seizures and Physical Reactions



**2.3.1. Three Flashes or Below Threshold:** Web pages do not contain anything that flashes more than three times in any one second period, or the flash is below the general flash and red flash thresholds.

Level	Compliance 2.3.1.
A	Does not apply

**2.3.2. Three Flashes:** Web pages do not contain anything that flashes more than three times in any one second period.

Level	Compliance 2.3.2.
AAA	Does not apply

**2.3.3. Animation from Interactions:** Motion animation triggered by interaction can be disabled, unless the animation is essential to the functionality or the information being conveyed.

Level	Compliance 2.3.3.
AAA	Does not apply

## 2.4. Guideline: Navigable

**2.4.1. Bypass Blocks:** A mechanism is available to bypass blocks of content that are repeated on multiple Web pages.

Level	Compliance 2.4.1.
A	Does not apply

**2.4.2. Page Titled:** Web pages have titles that describe topic or purpose.

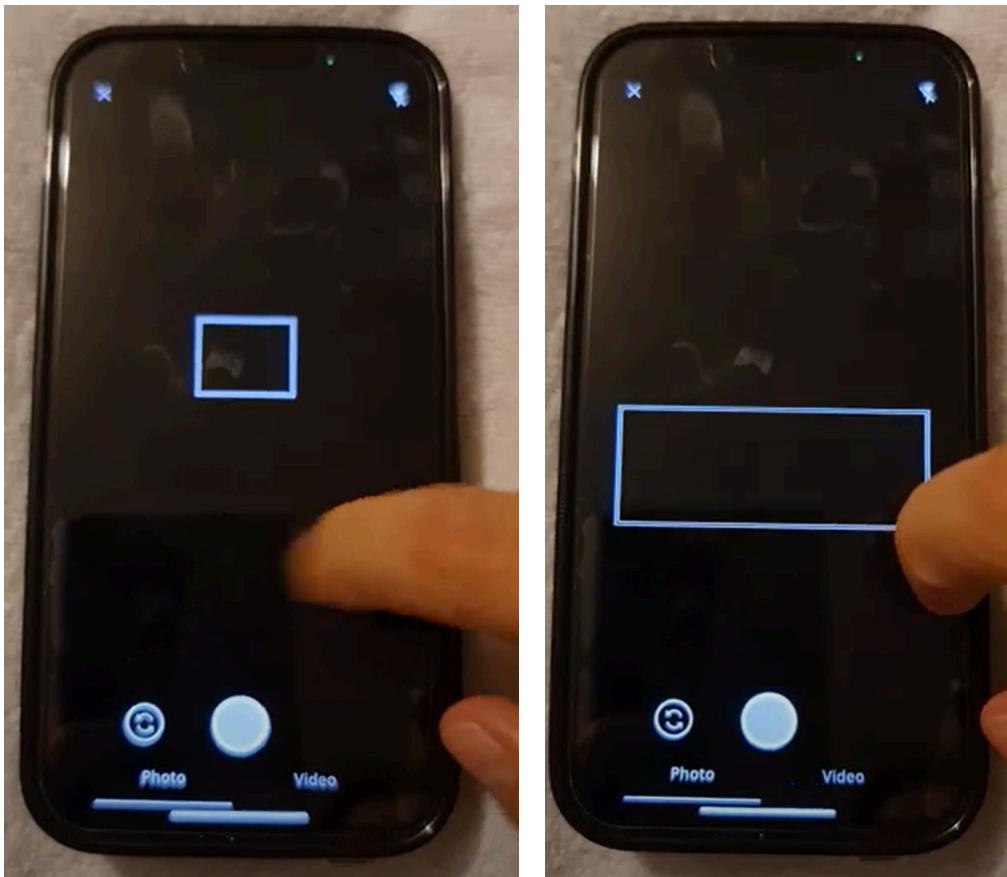
Level	Compliance 2.4.2.
A	Yes

**2.4.3. Focus Order:** If a Web page can be navigated sequentially and the navigation sequences affect meaning or operation, focusable components receive focus in an order that preserves meaning and operability.

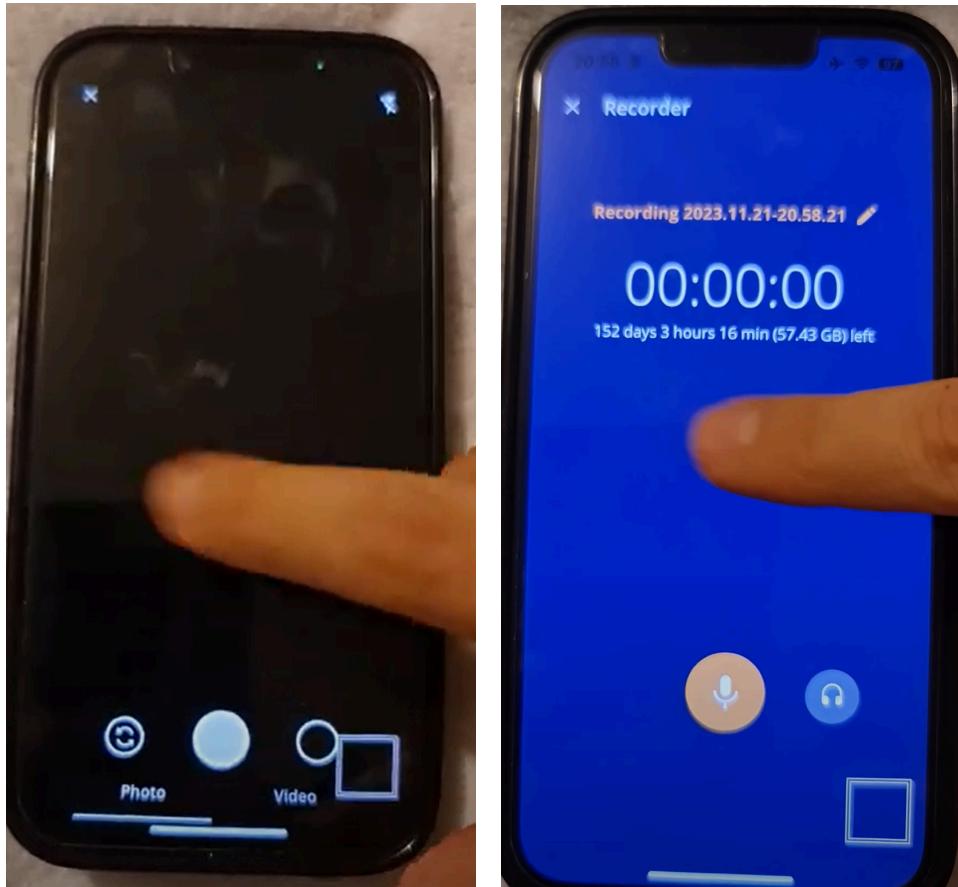
Level	Compliance 2.4.3.
A	No

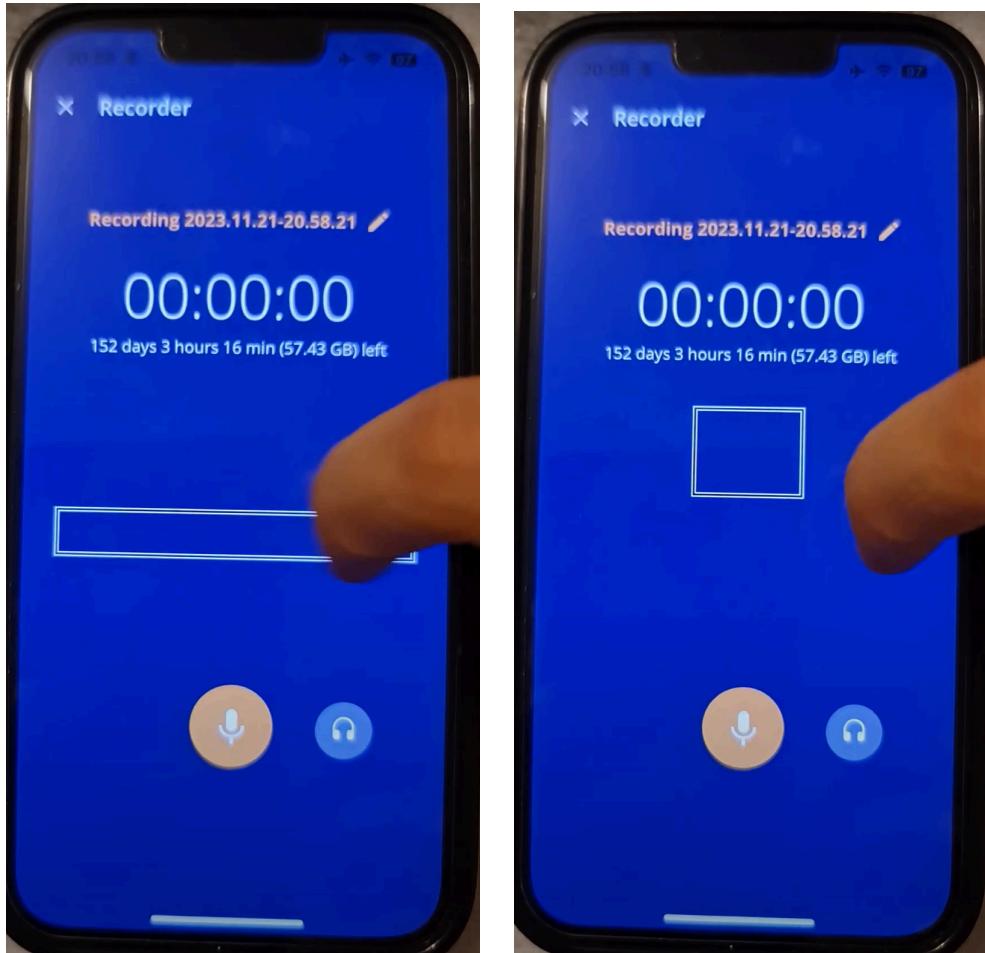
The intent of this Success Criterion is to ensure that when users navigate sequentially through content, they encounter information in an order that is consistent with the meaning of the content and can be operated from the keyboard. This reduces confusion by letting users form a consistent mental model of the content. There may be different orders that reflect logical relationships in the content.

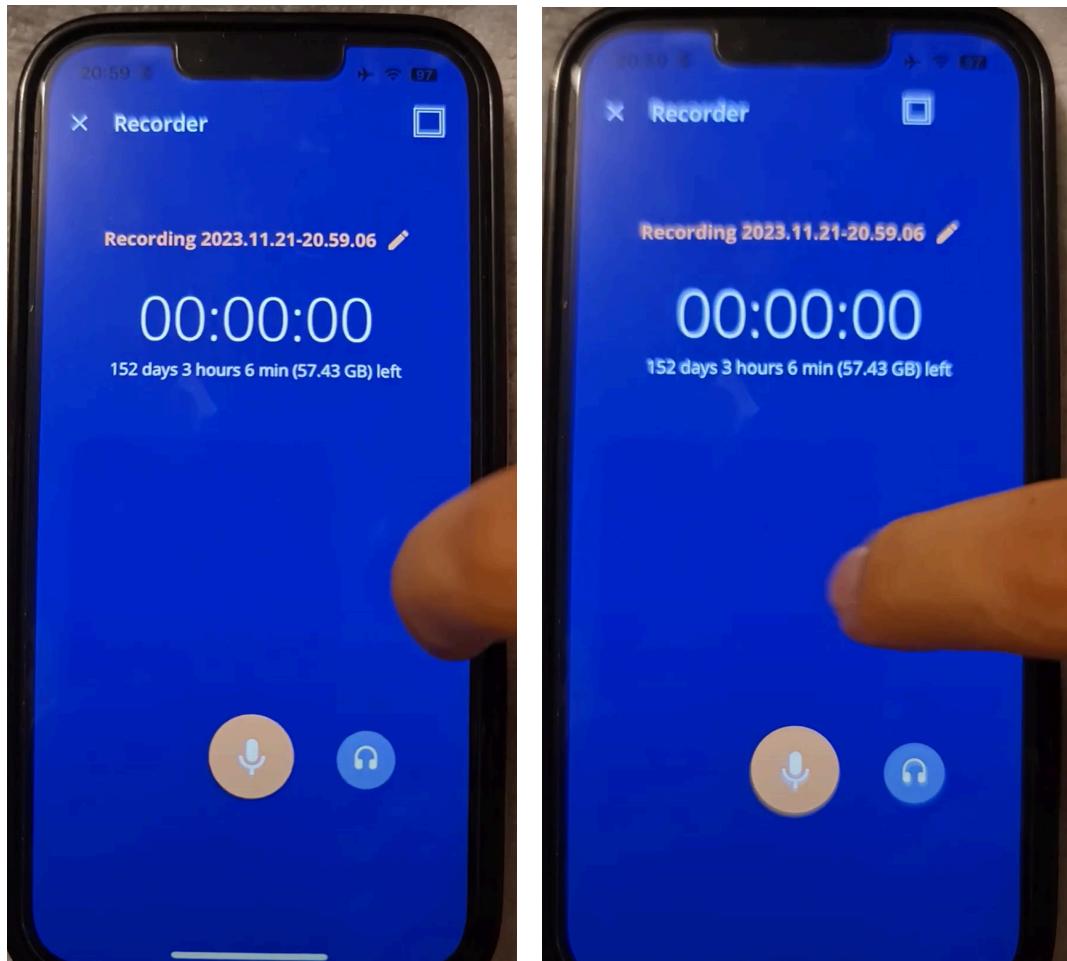
When using a screen reader, the focus recognizes elements from another layer.











**2.4.4. Link Purpose (In Context):** The purpose of each link can be determined from the link text alone or from the link text together with its programmatically determined link context, except where the purpose of the link would be ambiguous to users in general.

Level	Compliance 2.4.4.
A	Yes

**2.4.5. Multiple Ways:** More than one way is available to locate a Web page within a set of Web pages except where the Web Page is the result of, or a step in, a process.

Level	Compliance 2.4.5.
AA	Does not apply



2.4.6. **Headings and Labels:** Headings and labels describe topic or purpose.

Level	Compliance 2.4.6.
AA	Yes

2.4.7. **Focus Visible:** Any keyboard operable user interface has a mode of operation where the keyboard focus indicator is visible.

Level	Compliance 2.4.7.
AA	Yes

2.4.8. **Location:** Information about the user's location within a set of Web pages is available.

Level	Compliance 2.4.8.
AAA	Does not apply

2.4.9. **Link Purpose (Link Only):** A mechanism is available to allow the purpose of each link to be identified from link text alone, except where the purpose of the link would be ambiguous to users in general.

Level	Compliance 2.4.9.
AAA	Yes

2.4.10. **Section Headings:** Section headings are used to organize the content.

Level	Compliance 2.4.10.
AAA	Does not apply

2.4.11. **Focus Not Obscured (Minimum):** When a user interface component receives keyboard focus, the component is not entirely hidden due to author-created content.

Level	Compliance 2.4.11.
AA	Does not apply

2.4.12. **Focus Not Obscured (Enhanced):** When a user interface component receives keyboard focus, no part of the component is hidden by author-created content.



Level	Compliance 2.4.12.
AAA	Does not apply

**2.4.13. Focus Appearance:** When the keyboard focus indicator is visible, an area of the focus indicator meets all the following:

- is at least as large as the area of a 2 CSS pixel thick perimeter of the unfocused component or sub-component, and
- has a contrast ratio of at least 3:1 between the same pixels in the focused and unfocused states.

Exceptions:

- The focus indicator is determined by the user agent and cannot be adjusted by the author, or
- The focus indicator and the indicator's background color are not modified by the author.

Level	Compliance 2.4.13.
AAA	Does not apply

## 2.5. Guideline: Input Modalities

**2.5.1. Pointer Gestures:** All functionality that uses multipoint or path-based gestures for operation can be operated with a single pointer without a path-based gesture, unless a multipoint or path-based gesture is essential.

Level	Compliance 2.5.1.
A	Yes

**2.5.2. Pointer Cancellations:** For functionality that can be operated using a single pointer, at least one of the following is true:

- **No Down-Event:** The down-event of the pointer is not used to execute any part of the function;
- **Abort or Undo:** Completion of the function is on the up-event, and a mechanism is available to abort the function before completion or to undo the function after completion;
- **Up Reversal:** The up-event reverses any outcome of the preceding down-event;



- **Essential:** Completing the function on the down-event is essential.

Level	Compliance 2.5.2.
A	Yes

2.5.3. **Label in Name:** For user interface components with labels that include text or images of text, the name contains the text that is presented visually.

Level	Compliance 2.5.3.
A	Yes

2.5.4. **Motion Actuation:** Functionality that can be operated by device motion or user motion can also be operated by user interface components and responding to the motion can be disabled to prevent accidental actuation, except when:

- **Supported Interface:** The motion is used to operate functionality through an accessibility supported interface;
- **Essential:** The motion is essential for the function and doing so would invalidate the activity.

Level	Compliance 2.5.4.
A	Does not apply

2.5.5. **Target Size:** The size of the target for pointer inputs is at least 44 by 44 CSS pixels except when:

- **Equivalent:** The target is available through an equivalent link or control on the same page that is at least 44 by 44 CSS pixels;
- **Inline:** The target is in a sentence or block of text;
- **User Agent Control:** The size of the target is determined by the user agent and is not modified by the author;
- **Essential:** A particular presentation of the target is essential to the information being conveyed.

Level	Compliance 2.5.5.
AAA	No



The intent of this success criteria is to ensure that target sizes are large enough for users to easily activate them, even if the user is accessing content on a small handheld touch screen device, has limited dexterity, or has trouble activating small targets for other reasons. For instance, mice and similar pointing devices can be hard to use for these users, and a larger target will help them activate the target.

Touch is particularly problematic as it is an input mechanism with coarse precision. Users lack the same level of fine control when using inputs such as a mouse or stylus. A finger is larger than a mouse pointer, and generally obstructs the user's view of the precise location on the screen that is being touched/activated.

The issue can even be further complicated with responsive layouts on small screens like mobile, which need to accommodate different types of fine and coarse inputs. Both input types must be supported for a site that can be accessed both on a traditional desktop/laptop with a mouse, as well as on a tablet or mobile phone with a touch screen.

While this criterion defines a minimum target size, as a best practice it is recommended that larger sizes are used to reduce the possibility of unintentional activations.

The click/touch target size should be large enough to facilitate easy use with a finger, without risking activating an adjacent link or button.

Given the wide variety of sizes, resolutions, and pixel densities measuring can be a bit of a challenge. But the basic guideline is: verify the width to at least 44px in the CSS (or big and separate enough).

General good examples:



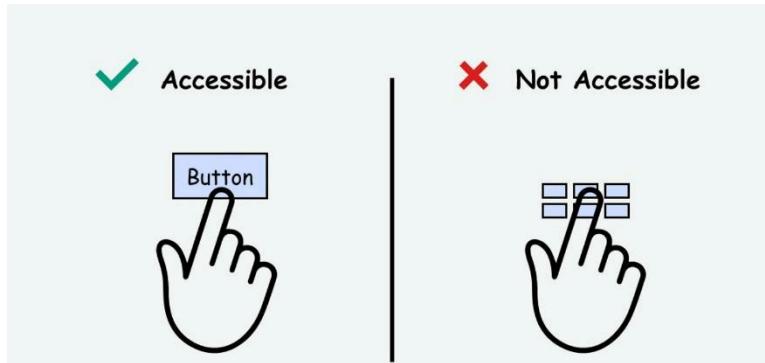
General bad example:

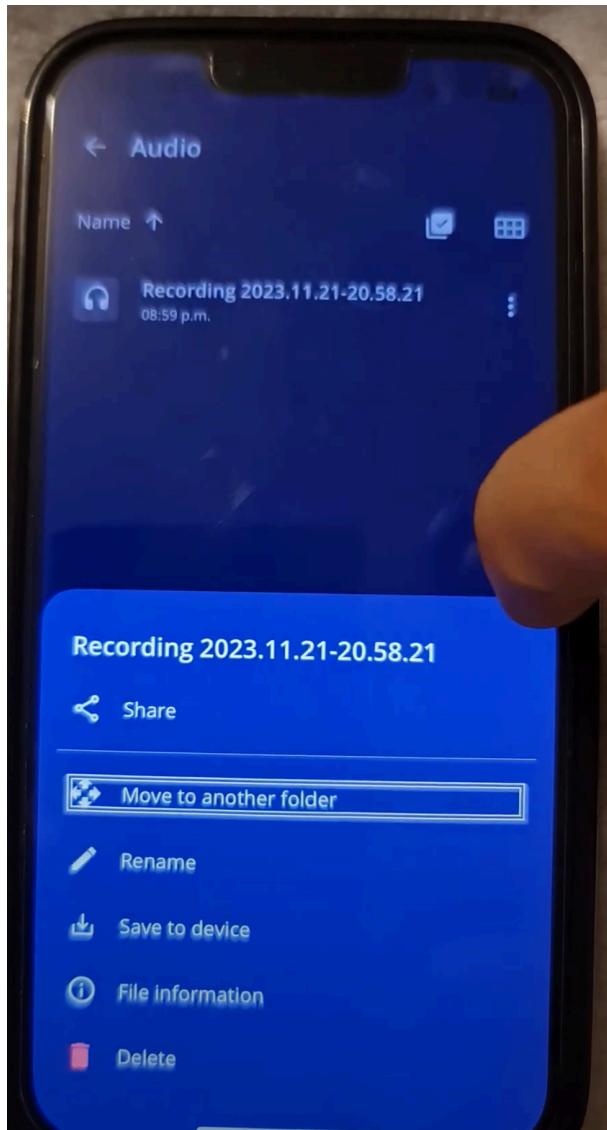


Note: the screenshots were obtained using [Accessibility Scanner app](#).

## Android Touch target size

Provide buttons with a large target size





Note: there are other small icons that could increase size if you add a label as recommended in Sensory Characteristics success criteria 1.3.3.

**2.5.6. Concurrent Input Mechanisms:** Web content does not restrict use of input modalities available on a platform except where the restriction is essential, required to ensure the security of the content, or required to respect user settings.

Level	Compliance 2.5.6.
AAA	Yes



**2.5.7. Dragging Movements:** All functionality that uses a dragging movement for operation can be achieved by a single pointer without dragging, unless dragging is essential or the functionality is determined by the user agent and not modified by the author.

Level	Compliance 2.5.7.
AA	Does not apply

**2.5.8. Target Size (Minimum):** The size of the target for pointer inputs is at least 24 by 24 CSS pixels, except where:

- **Spacing:** Undersized targets (those less than 24 by 24 CSS pixels) are positioned so that if a 24 CSS pixel diameter circle is centered on the bounding box of each, the circles do not intersect another target or the circle for another undersized target;
- **Equivalent:** The function can be achieved through a different control on the same page that meets this criterion;
- **Inline:** The target is in a sentence or its size is otherwise constrained by the line-height of non-target text;
- **User agent control:** The size of the target is determined by the user agent and is not modified by the author;
- **Essential:** A particular presentation of the target is essential or is legally required for the information being conveyed.

Level	Compliance 2.5.8.
AA	Yes

## 3. Principle: Understandable

### 3.1. Guideline: Readable

**3.1.1. Language of Page:** The default human language of each Web page can be programmatically determined.

Level	Compliance 3.1.1.
A	Yes

**3.1.2. Language of Parts:** The human language of each passage or phrase in the content can be programmatically determined except for proper names, technical terms, words of indeterminate language, and words or phrases that have become part of the vernacular of the immediately surrounding text.

Level	Compliance 3.1.2.
AA	Does not apply

**3.1.3. Unusual Words:** A mechanism is available for identifying specific definitions of words or phrases used in an unusual or restricted way, including idioms and jargon.

Level	Compliance 3.1.3.
AAA	Does not apply

**3.1.4. Abbreviations:** A mechanism for identifying the expanded form or meaning of abbreviations is available.

Level	Compliance 3.1.4.
AAA	Does not apply

**3.1.5. Reading Level:** When text requires reading ability more advanced than the lower secondary education level after removal of proper names and titles, supplemental content, or a version that does not require reading ability more advanced than the lower secondary education level, is available.

Level	Compliance 3.1.5.
AAA	Does not apply

**3.1.6. Pronunciation:** A mechanism is available for identifying specific pronunciation of words where meaning of the words, in context, is ambiguous without knowing the pronunciation.

Level	Compliance 3.1.6.
AAA	Does not apply

## 3.2. Guideline: Predictable

**3.2.1. On Focus:** When any component receives focus, it does not initiate a change of context.

Level	Compliance 3.2.1.
A	Yes

**3.2.2. On Input:** Changing the setting of any user interface component does not automatically cause a change of context unless the user has been advised of the behavior before using the component.

Level	Compliance 3.2.2.
A	Yes

**3.2.3. Consistent Navigation:** Navigational mechanisms that are repeated on multiple Web pages within a set of Web pages occur in the same relative order each time they are repeated, unless a change is initiated by the user.

Level	Compliance 3.2.3.
AA	Yes

**3.2.4. Consistent Identification:** Components that have the same functionality within a set of Web pages are identified consistently.

Level	Compliance 3.2.4.
AA	Yes

**3.2.5. Change on Request:** Changes of context are initiated only by user request or a mechanism is available to turn off such changes.

Level	Compliance 3.2.5.
AAA	Yes

**3.2.6. Consistent Help:** If a Web page contains any of the following help mechanisms, and those mechanisms are repeated on multiple Web pages within a set of Web pages, they occur in the same order relative to other page content, unless a change is initiated by the user:

- Human contact details;
- Human contact mechanism;
- Self-help option;
- A fully automated contact mechanism.

Level	Compliance 3.2.6.
A	Does not apply

### 3.3. Guideline: Input Assistance

3.3.1. **Error Identification:** If an input error is automatically detected, the item that is in error is identified and the error is described to the user in text.

Level	Compliance 3.3.1.
A	Yes

3.3.2. **Labels or Instructions:** Labels or instructions are provided when content requires user input.

Level	Compliance 3.3.2.
A	Yes

3.3.3. **Error Suggestion:** If an input error is automatically detected and suggestions for correction are known, then the suggestions are provided to the user, unless it would jeopardize the security or purpose of the content.

Level	Compliance 3.3.3.
AA	Does not apply

3.3.4. **Error Prevention (Legal, Financial, Data):** For Web pages that cause legal commitments or financial transactions for the user to occur, that modify or delete user-controllable data in data storage systems, or that submit user test responses, at least one of the following is true:

1. **Reversible:** Submissions are reversible.
2. **Checked:** Data entered by the user is checked for input errors and the user is provided an opportunity to correct them.
3. **Confirmed:** A mechanism is available for reviewing, confirming, and correcting information before finalizing the submission.

Level	Compliance 3.3.4.
AA	Does not apply

3.3.5. **Help:** Context-sensitive help is available.



Level	Compliance 3.3.5.
AAA	Does not apply

**3.3.6. Error Prevention (All):** For Web pages that require the user to submit information, at least one of the following is true:

1. **Reversible:** Submissions are reversible.
2. **Checked:** Data entered by the user is checked for input errors and the user is provided an opportunity to correct them.
3. **Confirmed:** A mechanism is available for reviewing, confirming, and correcting information before finalizing the submission.

Level	Compliance 3.3.6.
AAA	Yes

**3.3.7. Redundant Entry:** Information previously entered by or provided to the user that is required to be entered again in the same process is either:

- auto-populated, or
- available for the user to select.

Except when:

- re-entering the information is essential,
- the information is required to ensure the security of the content, or
- previously entered information is no longer valid.

Level	Compliance 3.3.7.
A	Does not apply

**3.3.8. Accessible Authentication (Minimum):** A cognitive function test (such as remembering a password or solving a puzzle) is not required for any step in an authentication process unless that step provides at least one of the following:

#### **Alternative**

Another authentication method that does not rely on a cognitive function test.

#### **Mechanism**

A mechanism is available to assist the user in completing the cognitive function test.



### Object Recognition

The cognitive function test is to recognize objects.

### Personal Content

The cognitive function test is to identify non-text content the user provided to the Web site.

Level	Compliance 3.3.8.
AA	Does not apply

**3.3.9. Accessible Authentication (Enhanced):** A cognitive function test (such as remembering a password or solving a puzzle) is not required for any step in an authentication process unless that step provides at least one of the following:

### Alternative

Another authentication method that does not rely on a cognitive function test.

### Mechanism

A mechanism is available to assist the user in completing the cognitive function test.

Level	Compliance 3.3.9.
AAA	Does not apply

## 4. Principle: Robust

### 4.1. Guideline: Compatible

**4.1.1. Parsing:** (Obsolete and removed)

Level	Compliance 4.1.1.
A	Does not apply

**4.1.2. Name, Role, Value:** For all user interface components (including but not limited to: form elements, links and components generated by scripts), the name and role can be programmatically determined; states, properties, and values that can be set by the user can be programmatically set; and notification of changes to these items is available to user agents, including assistive technologies.



Level	Compliance 4.1.2.
A	Yes

**4.1.3. Status Messages:** In content implemented using markup languages, status messages can be programmatically determined through role or properties such that they can be presented to the user by assistive technologies without receiving focus.

Level	Compliance 4.1.3.
AA	Yes

## Source

[Web Content Accessibility Guidelines 2.2](#)