

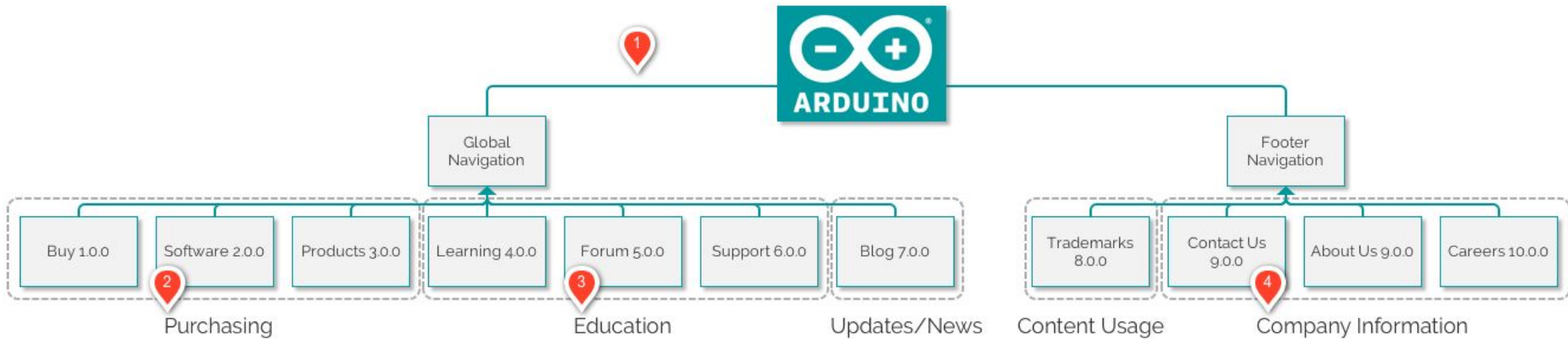


Site Blueprint

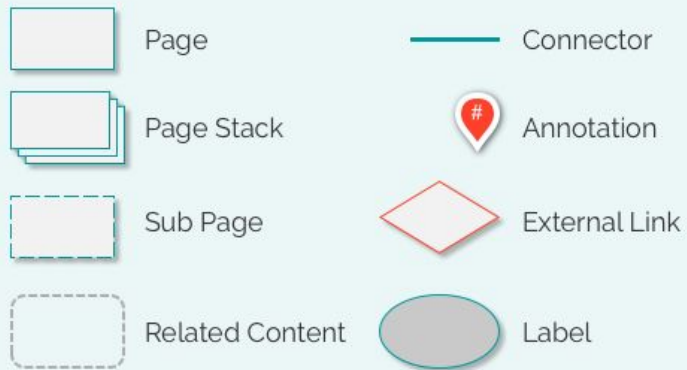
Jessica Kainu

Table of Contents

| | |
|----------------------|----|
| Home..... | 2 |
| Products..... | 3 |
| Learning | |
| Getting Started..... | 4 |
| Tutorials..... | 5 |
| Reference..... | 6 |
| Education..... | 7 |
| Playground..... | 8 |
| Support..... | 9 |
| Summary..... | 10 |



Legend

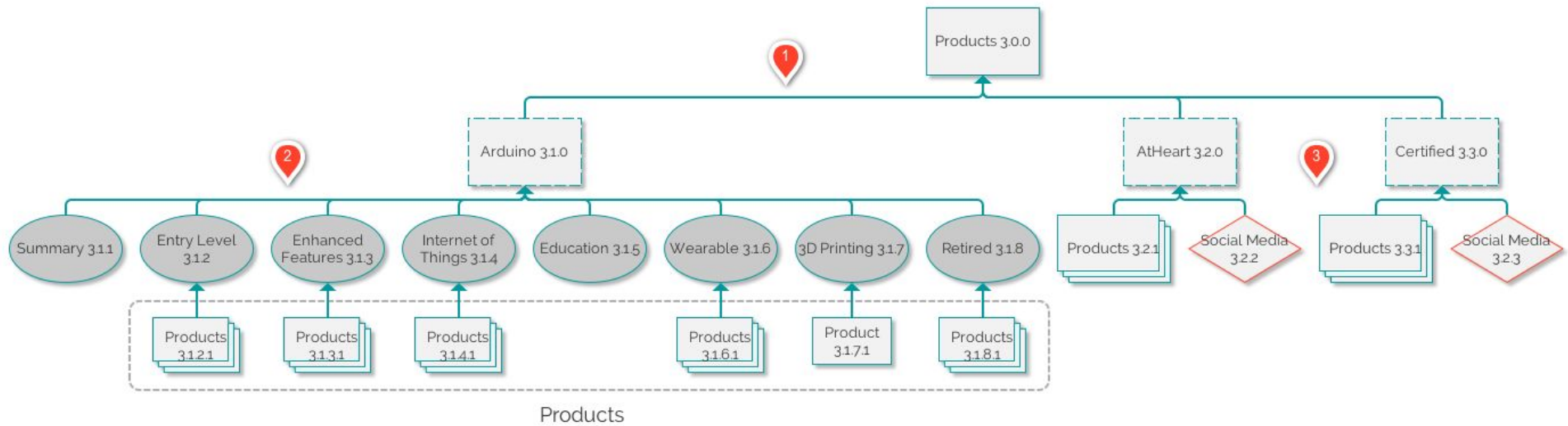


Notes

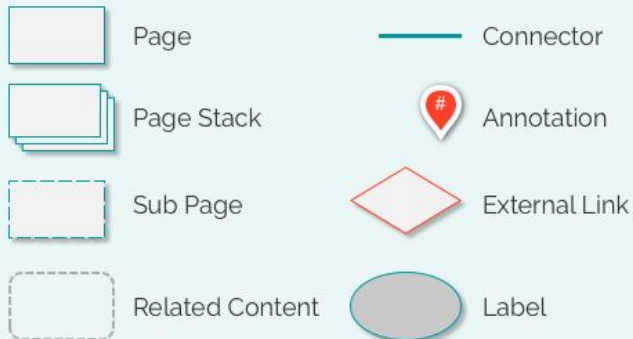
1. The global and footer navigation are split for contextual purposes pertaining to where they are located on the site. They are displayed on every page in their respective places.
2. The overall theme of these navigational items can be grouped as purchasing goods like products and software.
3. The overall theme of these navigational items can be grouped as educational tools from reading, communicating with others and reaching out to the company.
4. The overall theme of these navigational items can be viewed as information about the company. This can commonly be found in the site footer.

Other site elements not listed here include: contextual search, log in/sign up, newsletter sign up, and social media icons.

This page is well organized, especially since navigational items are thematically arranged. This page is simple to understand with appropriate labelling and iconography (e.g. see more, social media)



Legend



Notes

1. The Products tab is split into three subgroups, Arduino, AtHeart, and Certified. The Products tab is not clickable and represents the theme of each of these sub facets.
2. Arduino is a sub page comprised of many labels that also offer products. Almost all labels have associated products that go with them.
3. AtHeart and Certified are sub pages set up similarly that they each have their own products and social media listed. The structure is the same but the content is different.

These product pages are very overwhelming and would be difficult to peruse for a first-time user. This is due to the fact that many of these products look very similar to each other. The color labelling is also difficult to decipher because the user must constantly scroll up if they cannot remember what category a color belongs to. (See Figure 1)

One interesting feature that can be seen throughout the site is the menu on the lefthand side that highlights the section the user is currently viewing. Though sometimes it can be a little bit off (e.g. the user may be looking at IoT rather than Enhanced Features) this proves to be useful on pages with a lot of content. (See Figure 2)

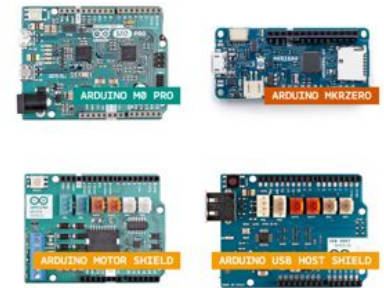
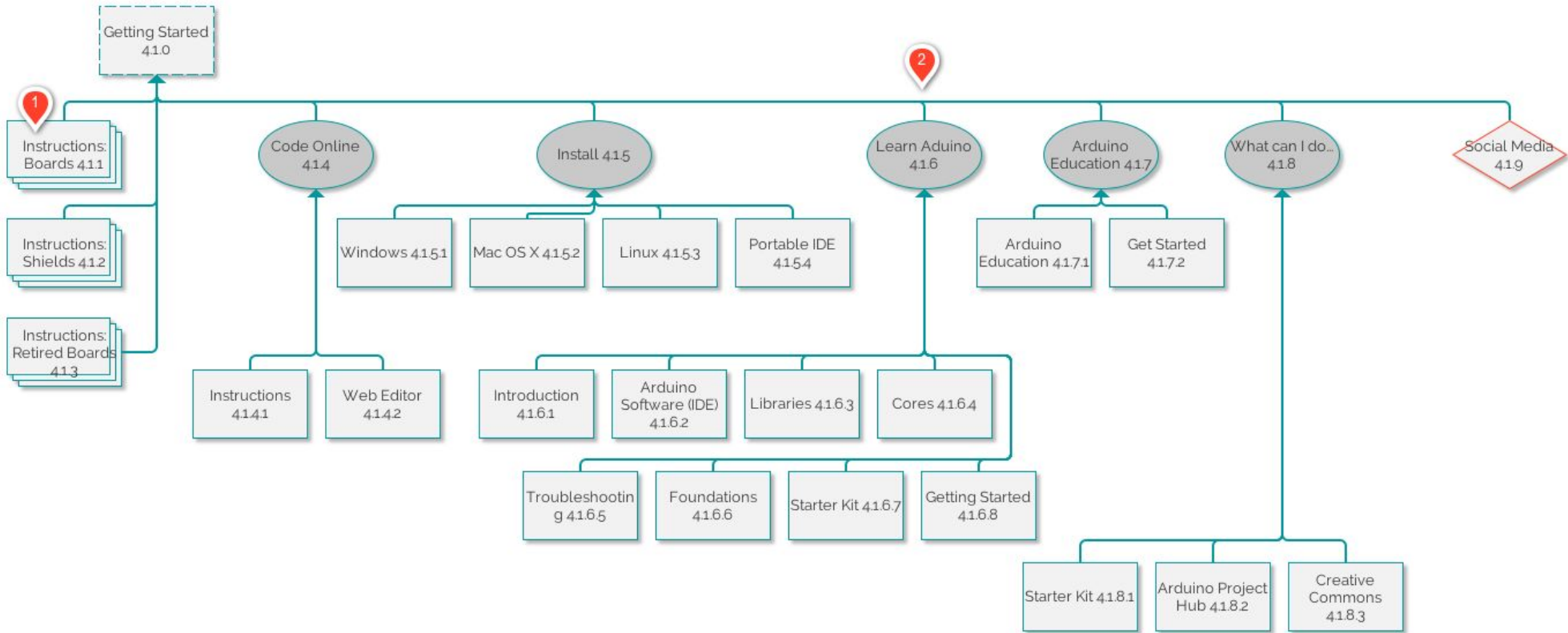
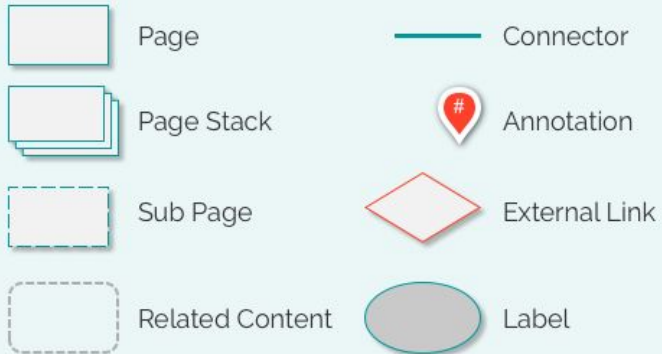


Figure 1

[Summary](#)
[Entry Level](#)
[Enhanced Features](#)
[IoT](#)
[Education](#)
[Wearable](#)
[3D Printing](#)
[Retired](#)



Legend



Notes

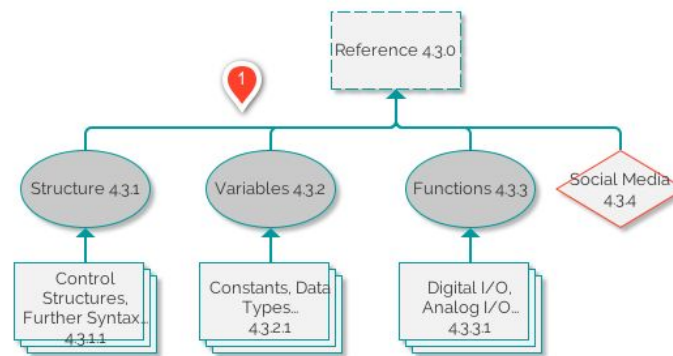
1. The right hand side of the page contains a menu of different instructions pertaining to boards, shields, and retired boards. This breaks the pattern seen on other pages with a lefthand menu that interacts with the page. (See Figure 3)
2. Each label contains a lot of textual information which causes this page to be very text dense, with links scattered throughout. This can be especially difficult for users to find what they are looking for since the majority of links unrelated to "Instructions" are not listed in a menu. They are listed throughout paragraphs of text with labels that do not necessarily pertain to what the linked page is about.

Unlike other pages, there is no side menu to indicate the section the user is looking at. (See Products 3.0.0 page.) The right when side menu acts as its own content section full of links that do not pertain to the rest of the content on the Getting Started page.

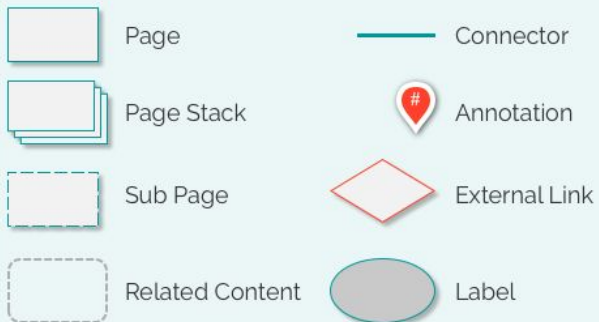
Instructions for our boards:

- 101
- ADK
- Due
- Esplora
- Gemma
- Intel Edison
- Intel Galileo Gen2
- ISP
- Leonardo, Leonardo ETH and Micro
- LilyPad, LilyPad Simple and LilyPad SimpleSnap
- LilyPad USB
- MEGA2560
- Mini
- MICRO:PNP
- PRO:MINI

Figure 3



Legend



Notes

1. Another page layout is introduced on the Arduino site under the "Reference" sub page (under Learning). This proves difficult for a user to parse through since it is a page filled with links with no easy-to-understand hierarchy. Although the blueprint for this page is small there is a lot of content to be parsed through under each section. (See Figure 5.)

This page could be reorganized to follow common navigational patterns that are already set up on the site. (e.g. Lefthand sidebar menu)

Structure

- setup()
- loop()

Control Structures

- if
- if...else
- for
- switch case
- while

Variables

Constants

- HIGH | LOW
- INPUT | OUTPUT | INPUT_PULLUP
- LED_BUILTIN
- true | false
- integer constants
- floating point constants

Data Types

Functions

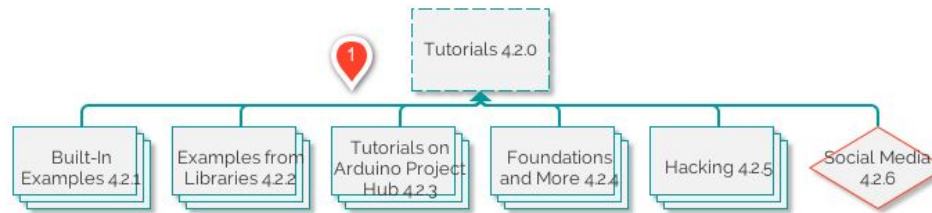
Digital I/O

- pinMode()
- digitalWrite()
- digitalRead()

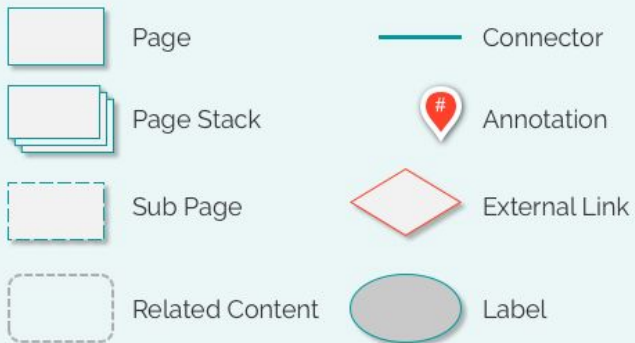
Analog I/O

- analogReference()
- analogRead()
- analogWrite() - PWM

Figure 5



Legend



Notes

1. Each section on the Tutorials page links out to another page/area. There are visual indicators and organization of information this page allow for easy navigation. This page is easy to use for first-time users.

The Tutorials page has its own unique layout, different from the rest of the site. (See Figure 4.) The user hovers over a section and it highlights, leading the user to clickable content and a new page. Though this pattern of navigation is nice with iconography, large titles, and boxed content, it is difficult to understand why the pattern of using a side menu is broken on this page.

There is a digestible amount of content on this page and it appears to be the most user-friendly by the criteria stated above.

Tutorials



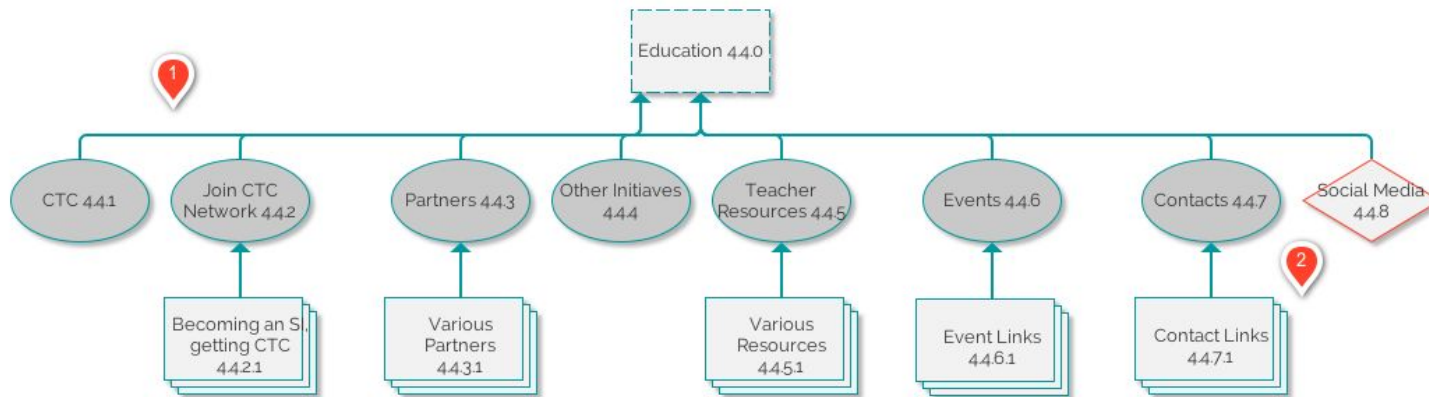
BUILT-IN EXAMPLES

Built-in Examples are sketches included in the Arduino Software (IDE). To open them click on the toolbar menu: File > Examples. These simple programs demonstrate all basic Arduino commands. They span from a Sketch Bare Minimum to Digital and Analog I/O, to the use of Sensors and Displays.

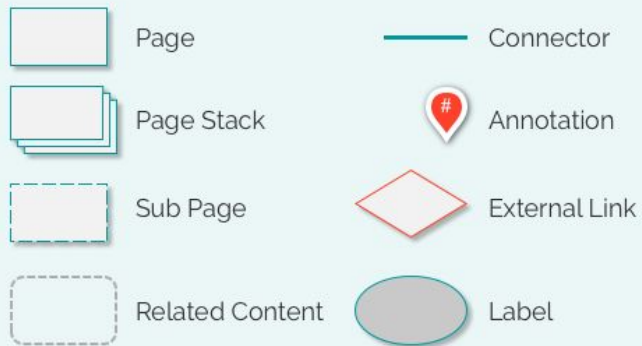


EXAMPLES FROM LIBRARIES

The Arduino Software (IDE) can be extended through the use of libraries, just like most programming platforms, to provide extra functionality to your sketches. These tutorials walk you through the Examples of a number of libraries that come installed with the IDE, to open them click on the toolbar menu: File > Examples.



Legend



Notes

1. The pattern of a lefthand side menu that shows the section the user is looking at is presented on this page. Since it follows a familiar pattern it becomes easier for the user to comprehend and find relevant information.

2. There are many labels that lead to pages with more content. The labels for each link within the text of the site appears to be contextual, i.e. the user knows what sort of page they will be taken to based on the label. (See Figure 6.)

This page is well laid out and easy to understand, especially for a first time user. It comes across as an advertising page since there are lots of actionable items on joining CTC, resources, events, contacts, etc. it is interesting to note that the easiest to understand page is also an advertisement.

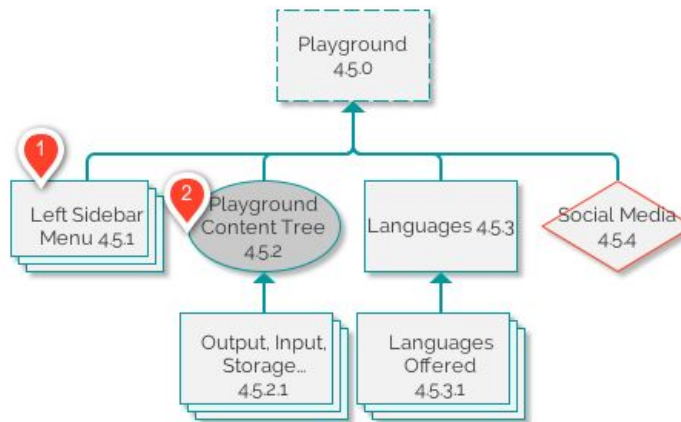
Join CTC Network

Are you an instructor interested in becoming a certified partner?

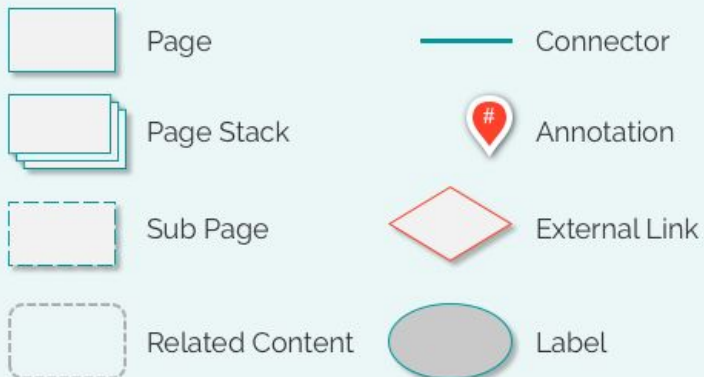
[Click here to become a System Integrator \(SI\)](#)

Are you a teacher or an educator interested in bringing CTC to your school?

[Click here to get CTC for your school](#)

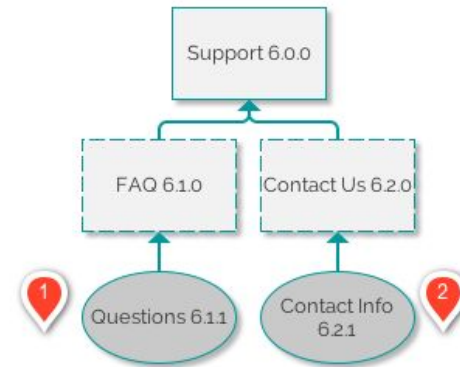


Legend

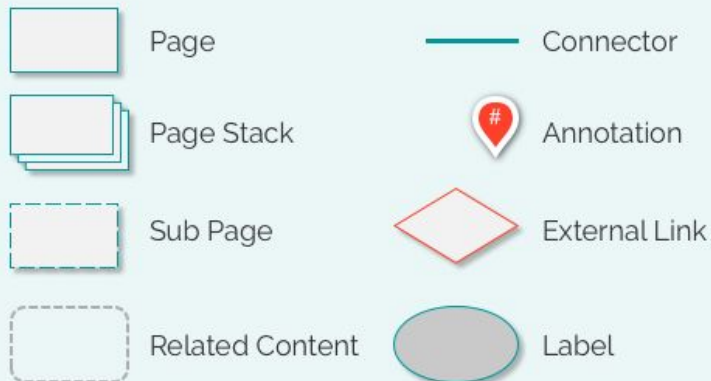


Notes

1. This menu does not act like other menus on top-level pages of the site. It is its own segment on this page. It brings the user to different pages with appropriately named labels. This breaks away from the pattern of the menu helping the user navigate around the page they are on. This menu has the user navigate away.
2. This label 'Playground Content Tree' is difficult to understand without any context or explanation. There does not appear to be any sort of definition accompanying of it either. There are many links and comments in the body of this page that are not necessarily easy to parse through or understand.



Legend



Notes

1. The teal questions on the left reflect links but are not clickable though they are displayed as links. They are differentiated enough from the answers that they can be parsed through fairly quickly, though this page is very text heavy. This page also has clickable content which creates confusion for the user since the links are the same color and size as the questions.
 2. The Contact Us page reflect the FAQ as topics are off to the left and content is on the right. There is the same issue with the titles and links being the same size and color.
- These two pages would benefit from typographical hierarchy. The questions and titles could perhaps be bold or even a different color to differentiate from being clickable. Since both pages are text/content heavy, a "back to top" button would also be useful as well.

Summary

What Works

- The global navigation is split appropriately between header and footer. Thematically the footer can be viewed as a hybrid of topical/task, all of which relate to company information. The header navigation follows the same pattern of a hybrid navigation scheme with topical/task being predominant.
- The contextual search is a great feature for users to navigate in an alternative fashion, rather than using site navigation tools.
- The Home page is easy enough to understand by chunking content into blocks with images. This works well to display most recent blog posts.
- On pages such as *Products > Arduino* and *Learning > Education* the lefthand navigation that follows the user down the page and highlights the section they are on is a great navigational tool. This clickable menu allows the user to move up and down the page with no searching and allows the user to stay oriented.

What Doesn't Work

- Throughout the site there are instances of headers/titles that are the same weight and color as links. This causes confusion when text that looks clickable takes the user no where.
- Links are consistently displayed throughout paragraphs of text and are not appropriately labelled. There is no context for the user to know where a link will take them.
- Consistent navigation is not present on sub pages. Many pages have their own navigational structure which creates confusion and frustration.

Recommendations

- Adjust typographical guidelines of what is a link, what is a header, what is text
- Links within text must be labelled appropriately to where the user is being taken, these should not be used in place of a page menu
- Utilizing the lefthand menu mentioned under "What Works" is a great way to establish consistency/patterns and creates a simple navigation scheme for the user. Sections must be titled appropriate to the page they are on.
- On more navigational heavy pages such as *Learning > The Arduino Playground* the lefthand navigation should be compressed into a simpler format. Pages that lead to the same place should be grouped together. Likewise, common synonyms should be grouped together under appropriate labels. This page could even stand alone in the top-level navigation and be its own site with how content dense it is.