# MPT
# Mechanical Pencil Tutorial

0.7mm

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# Overview

Build a website to showcase how to care for a mechanical pencil. In this simple website you will need to showcase three different learning styles and one quiz to show that the user understands what you have tried to teach them about the care of the mechanical pencil.

The quiz will need to be interactive, support all three learning styles, and must not have all the same types of interactivity for the questions.

You will be developing all the content for this website.

You will be creating all the supporting documentation for the project. This could be linked within the website or be stored as standalone documentation.

You will be testing the content and the website several times using different groups of testers and via different methodologies. ( i.e. paper prototypes, electronic prototypes, etc.)

The website will be built using HTML and PHP at minimum. The quiz results do not need to be stored to a database. A CMS is not acceptable.

# Learning Objectives

Learning objectives are statements about what a student will be able to do once they complete the course.

Part Familiarity – Learner will become acquainted with all parts of this mechanical pencil.

Function – Learner will know what each part does for this mechanical pencil.

Maintenance and Care – Learner will know how to maintain and take care of this mechanical pencil.

Refill – Learner will know how to refill the lead and replace the eraser for this mechanical pencil.

Troubleshoot – Learner will learn what procedures to follow to troubleshoot malfunctions of this mechanical pencil.

By using a computer, tablet or mobile device, the user will be able to study this mechanical pencil. After the tutorial, the user will be quizzed to see what they have learned.

A disclaimer was also added just to cover any errant problems that people might want to cause an issue.

**Disclaimer:** These tutorials are specific to the Up and Up Mechanical Pencil sold at Target Stores. Not responsible for product failure if you do not follow the care and maintenance in this tutorial. The color of the product in the images is completely arbitrary and has no impact on the tutorials.

# Project Timeline - Version 1

**Tasks**

Create Timeline
Research types of eLearning
          Determine 3 types of eLearning
                    eLearning type 1
                    eLearning type 2
                    eLearning type 3
Research pencil mechanics
          Determine pencil mechanics
                    Photograph pencil step-by-step
Research prototype software
          POP
          Marvel
Sketches
          Paper Prototype Mobile Website
                    Test paper prototype mobile
                    Analyze results
                    Determine changes
                    Update prototype mobile
                    Report findings
          Paper Prototype Desktop Website
                    Test paper prototype desktop
                    Analyze results
                    Determine changes
                    Update prototype desktop
                    Report findings
Research Test Questions
          Generate test questions
                    Test the test questions
                    Analyze results
                    Determine changes
                    Update test questions
                    Report findings
Testing
          Test Plan for peers
                    Build test
                    Test Peer User 1
                    Test Peer User 2
                    Test Peer User 3
                    Organize Results
                    Determine changes
                    Update wireframes and prototypes
                    Report findings
          Test plan for non-peers

Build Test
Test non-peer user 1
Test non-peer user 2
Test non-peer user 3
Test non-peer user 4
Organize Results
Determine changes
Update wireframes and prototypes
Report findings

Review all plans
Make adjustments to plans

Create build/project plan
Finalize process documents

Skills Website
Build website
Test user 1
Test user 2
Test user 3
Analyze results
Determine Changes
Finalize website
Report findings

# Project Timeline - Version 2

| Due | Task |
| --- | --- |
| **Due** | **Task** |
| W2C1 | Project Timeline |
| | Research types of eLearning |
| | Photograph pencil step-by-step |
| | Start work on ADDIE paper |
| W2C2 | ADDIE Paper |
| | Pencil Photographs |
| | Determine 3 types of eLearning |
| | Start work on Learning Objective paper |
| | Finalize process documents |
| W3C1 | Learning Objectives Paper |
| | Process Documents |
| | Start Mobile Paper |
| | Finalize Wireframes |
| W3C2 | Mobile Paper |
| | Wireframes |
| | Start Survey Assignment |
| W4C1 | Survey Assignment |
| | Research Test questions |
| | Generate test questions |
| | Test the test questions |
| | Analyze results |
| | Determine changes |
| | Update test questions |
| | Report findings |
| W4C2 | Test Questions |
| | Work on Skills website |
| | Paper Prototype Mobile Website |
| | Test paper prototype mobile |
| | Analyze results |
| | Determine changes |
| | Update prototype mobile |
| | Report findings |
| W5C1 | Test plan for Peers |
| | Build test |
| | Test Peer User 1 |
| | Test Peer User 2 |
| | Test Peer User 3 |

|        | Organize Results |
|--------|------------------|
|        | Determine changes before next set of tests |
|        | Update wireframes and prototypes |
|        | Report findings |
| W5C2   | Test plan for non-peers |
|        | Build Test |
|        | Test Peer User 1 |
|        | Test Peer User 2 |
|        | Test Peer User 3 |
|        | Organize Results |
|        | Determine changes |
|        | Update wireframes and prototypes |
|        | Report findings |
|        | Create build/project plan |
| W6C1   | Test findings report |
|        | Build/project plan |
|        | Work on skills website build |
| W6C2   | Critique of skills website |
|        | Progress report |
|        | Work on Skills website |
| W7C1   | Critique of skills website |
|        | Progress report |
|        | Work on Skills website |
| W7C2   | Critique of skills website |
|        | Progress report |
|        | Work on Skills website |
| W8C1   | Critique of skills website |
|        | Progress report |
|        | Work on Skills website |
| W8C2   | Critique of skills website |
|        | Progress report |
|        | Work on Skills website |
| W9C1   | Critique of skills website |
|        | Progress report |
|        | Work on Skills website |
|        | Test User 1 |
|        | Test User 2 |
|        | Test User 3 |
|        | Analyze results |
|        | Determine changes |
| W9C2   | Critique of skills website |

|         | Progress report                          |
|---------|------------------------------------------|
|         | Work on Skills website                   |
| W10C1   | Critique of skills website               |
|         | Progress report                          |
|         | Work on Skills website                   |
| W10C2   | Critique of skills website               |
|         | Progress report                          |
|         | Work on Skills website                   |
|         | Test User 1                              |
|         | Test User 2                              |
|         | Test User 3                              |
|         | Analyze results                          |
|         | Determine changes                        |
| W11C1   | Critique of skills website               |
|         | Finalize website                         |
| W11C2   | Final Project                            |
|         | Report Findings from Skills Website testing |

# Project Timeline - Version 3

| Due | Task |
|---|---|
| 4/12/2016 | Project Timeline<br>Research types of eLearning<br>Photograph pencil step-by-step<br>Start work on ADDIE paper |
| 4/14/2016 | ADDIE Paper<br>Pencil Photographs<br>Diagram eLearning<br>Infographic eLearning<br>Step-by-Step eLearning<br>Create Storyboard<br>Start work on Learning Objective paper<br>Finalize process documents |
| 4/19/2016 | Learning Objectives Paper<br>Process Documents<br>Start Mobile Paper<br>Finalize Wireframes |
| 4/21/2016 | Mobile Paper<br>Wireframes<br>Start Survey Assignment<br>Content Outline<br>Plan out illustrations for infographics |
| 4/26/2016 | Survey Assignment<br>Research Test questions<br>Generate test questions<br>Test the test questions<br>Analyze results<br>Determine changes<br>Update test questions<br>Report findings |
| 4/28/2016 | Test Questions<br>Work on Skills website<br>Paper Prototype Mobile Website<br>Test paper prototype mobile<br>Analyze results<br>Determine changes<br>Update prototype mobile<br>Report findings |
| | |

| | |
|---|---|
| 5/3/2016 | Test plan for Peers |
| | Build test |
| | Test Peer User 1 |
| | Test Peer User 2 |
| | Test Peer User 3 |
| | Organize Results |
| | Determine changes before next set of tests |
| | Update wireframes and prototypes |
| | Report findings |
| 5/5/2016 | Test plan for non-peers |
| | Build Test |
| | Test Peer User 1 |
| | Test Peer User 2 |
| | Test Peer User 3 |
| | Organize Results |
| | Determine changes |
| | Update wireframes and prototypes |
| | Report findings |
| | Create build/project plan |
| 5/10/2016 | Test findings report |
| | Build/project plan |
| | Work on skills website build |
| | Landing page layout & artwork |
| 5/12/2016 | Critique of skills website |
| | Progress report |
| | Work on Skills website |
| | Finalize Landing page layout & artwork |
| 5/17/2016 | Critique of skills website |
| | Progress report |
| | Work on Skills website |
| | Other pages layout & graphics |
| 5/19/2016 | Critique of skills website |
| | Progress report |
| | Work on Skills website |
| | Finalize other pages layout & graphics |
| 5/24/2016 | Critique of skills website |
| | Progress report |
| | Work on Skills website |
| | Coding |
| 5/26/2016 | Critique of skills website |
| | Progress report |
| | Work on Skills website |
| | Content Population |

| | |
|---|---|
| 5/31/2016 | Critique of skills website<br>Progress report<br>Work on Skills website<br>Test User 1<br>Test User 2<br>Test User 3<br>Analyze results<br>Determine changes |
| 6/2/2016 | Critique of skills website<br>Progress report<br>Work on Skills website |
| 6/7/2016 | Critique of skills website<br>Progress report<br>Work on Skills website |
| 6/9/2016 | Critique of skills website<br>Progress report<br>Work on Skills website<br>Test User 1<br>Test User 2<br>Test User 3<br>Analyze results<br>Determine changes |
| 6/14/2016 | Critique of skills website<br>Finalize website |
| 6/16/2016 | Final Project<br>Report Findings from Skills Website testing |

# eLearning Project Plan

| PHASES | ACTIVITY | PLAN START | PLAN DUE | ACTUAL START | ACTUAL DUE | PERCENT COMPLETE | PERSON RESPONSIBLE | PERIODS 4/5/16 | 4/12/16 |
|---|---|---|---|---|---|---|---|---|---|
| **Planning** | | | | | | | | | |
| | **Project Timeline** | 4/5/16 | 4/14/16 | 4/5/16 | 4/14/16 | **100%** | Project Manager | | |
| | **Photograph pencil Step-by-Step** | 4/12/16 | 4/14/16 | 4/12/16 | 4/14/16 | **100%** | Project Manager | | |
| | **Generate Test Questions** | 4/26/16 | 5/3/16 | 5/3/16 | 5/3/16 | **100%** | Information Architects | | |
| | **Test the test questions** | 5/3/16 | 5/3/16 | 5/3/16 | 5/5/16 | **100%** | Information Architects | | |
| | **Make adjustments to the test questions** | 5/5/16 | 5/5/16 | 5/5/16 | 5/5/16 | **100%** | Information Architects | | |
| | **Project Plan** | 5/5/16 | 5/10/16 | 5/10/16 | 5/10/16 | **100%** | Project Manager | | |
| **Design** | | | | | | | | | |
| | **Wireframes** | 4/19/16 | 4/21/16 | 4/21/16 | 4/21/16 | **100%** | Web Designer | | |
| | **Create Paper Prototype** | 4/26/16 | 4/28/16 | 5/3/16 | 5/5/16 | **100%** | Web Designer | | |
| | **Test Paper Prototype** | 5/3/16 | 5/10/16 | 5/5/16 | 5/10/16 | **100%** | Web Designer | | |
| **Development** | | | | | | | | | |
| | **Build website** | 5/10/16 | 6/7/16 | 5/10/16 | 6/7/16 | **100%** | Web Developer | | |
| **Soft-Launch** | | | | | | | | | |
| | **Test website** | 6/9/16 | 6/9/16 | 6/3/16 | 6/14/16 | **100%** | Web Developer | | |
| | **Make adjustments to website** | 6/9/16 | 6/14/16 | 6/7/16 | 6/9/16 | **100%** | Web Developer | | |
| | **Finalize website** | 6/14/16 | 6/14/16 | 6/7/16 | 6/9/16 | **100%** | Web Developer | | |
| **Launch** | **Project Due** | 6/16/16 | 6/16/16 | 6/14/16 | 6/14/16 | **100%** | Web Developer | | |
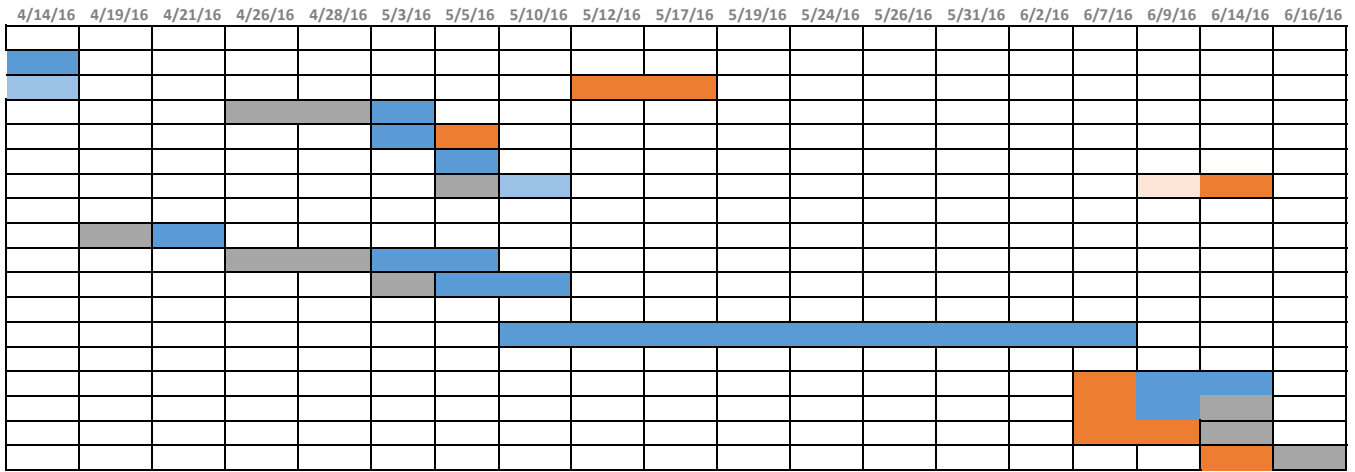
# Wireframes

## Desktop – Diagram – Version 1
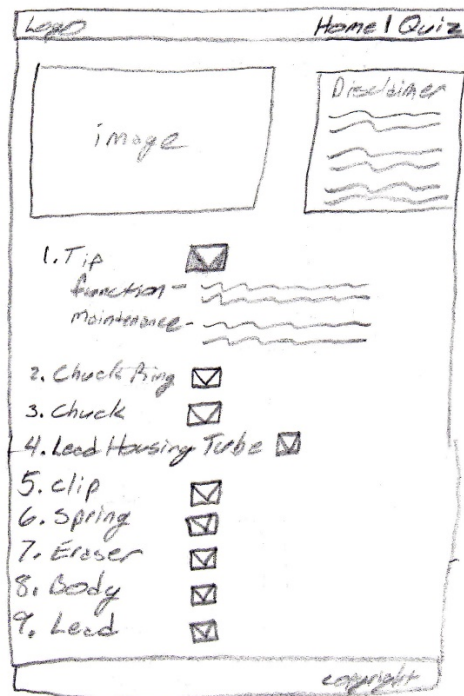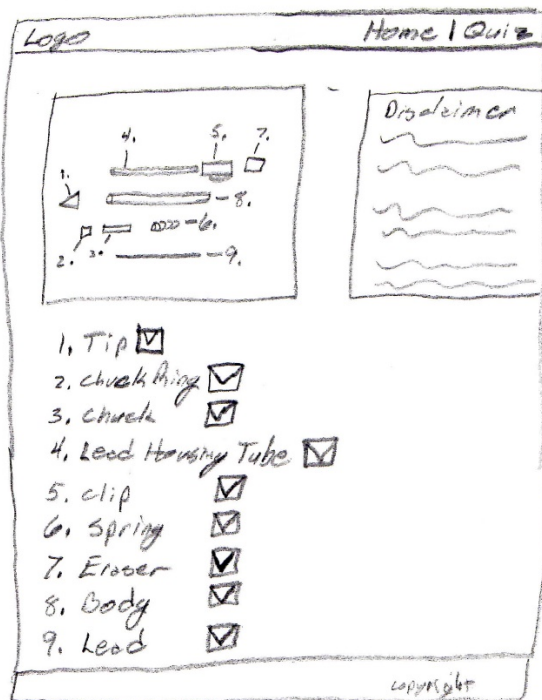


This was my first iteration of how I saw the desktop version of the diagram page. I took into account the feedback given to me. Suggestions were made that I may decide to rotate the image 90 degrees. I also thought that the menu of parts should move from under the diagram image to under the disclaimer. This lead to my second version:

**Diagram - V2 - Desktop**
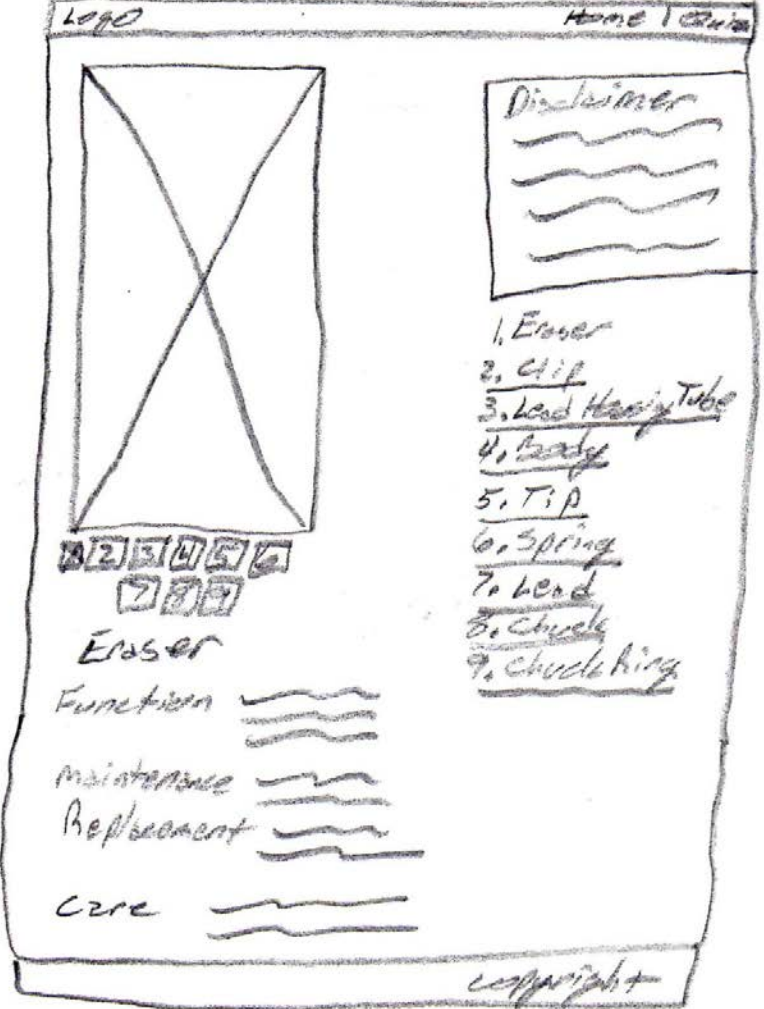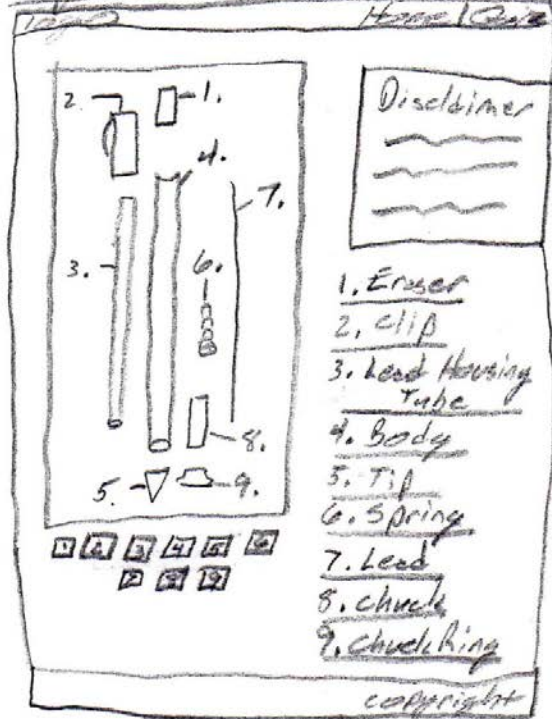
This iteration had a better feel for me. However, something still wasn't right. I didn't know exactly what "it" was, so I decided to work on the other pages first. Maybe then, "it" would be revealed.

# Wireframes

## Desktop – Infographic
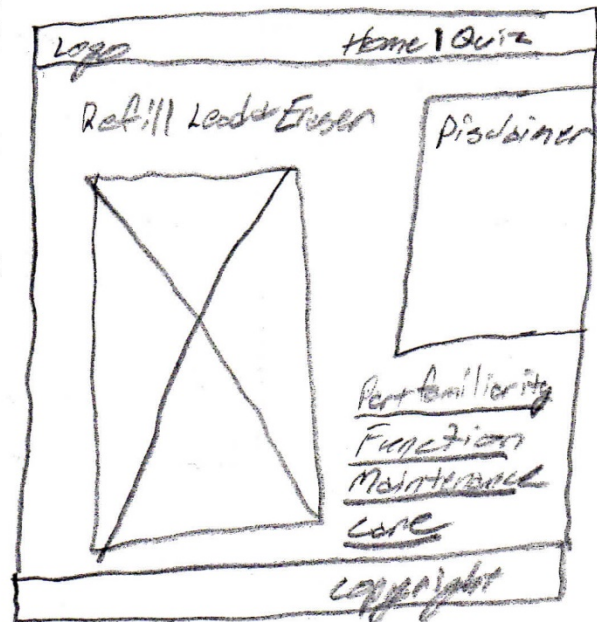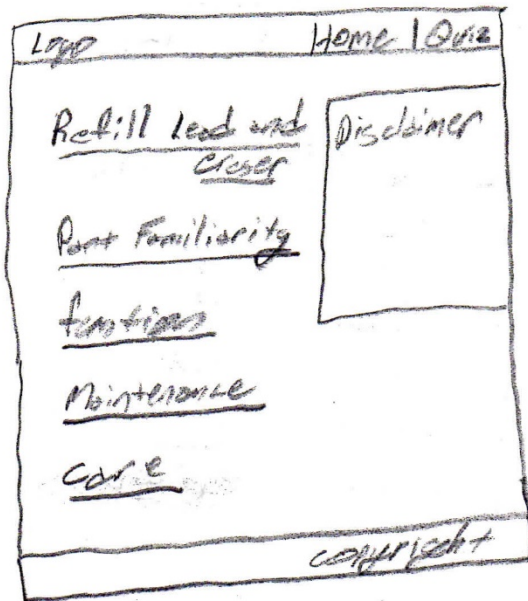


Apparently, during these wireframe iterations, I was locked in a mindset. I wasn't sure where to put the disclaimer, but I felt it was important enough to have it towards the top. Again, this just didn't feel right.

## Desktop – Step-by-Step
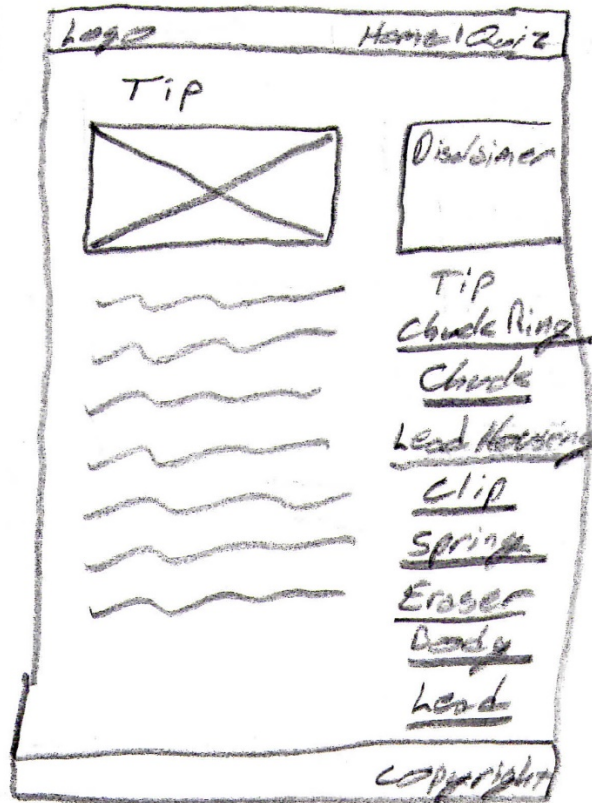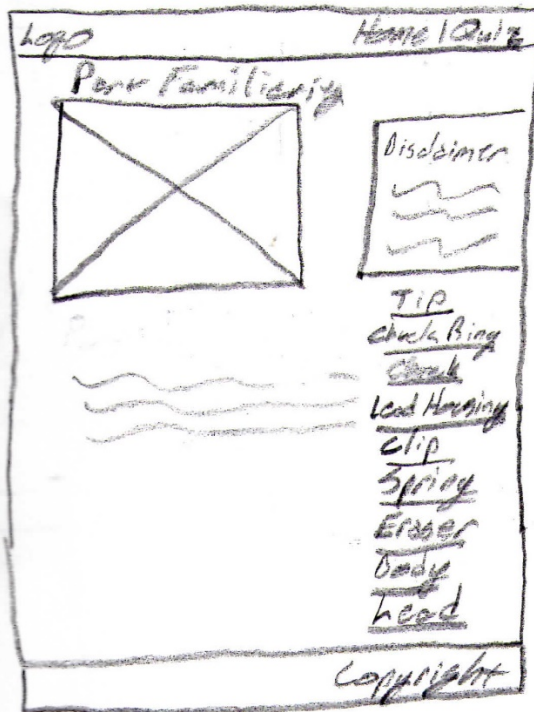


Sketching out the Step-by-Step page did not solve this feeling that something wasn't right. All the pages looked alike, which forms continuity, but I didn't really care for the layout. Maybe with the exploration of the mobile versions, I would figure "it" out.

# Wireframes

## Mobile – Diagram – Version 1
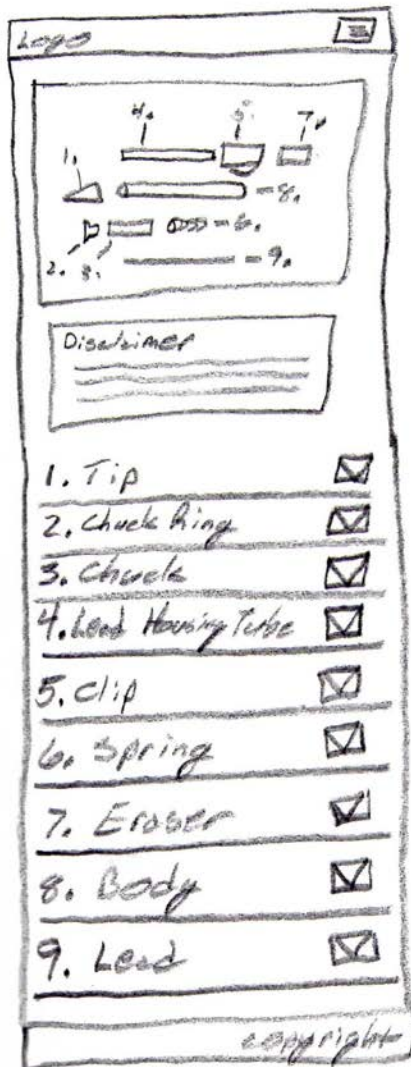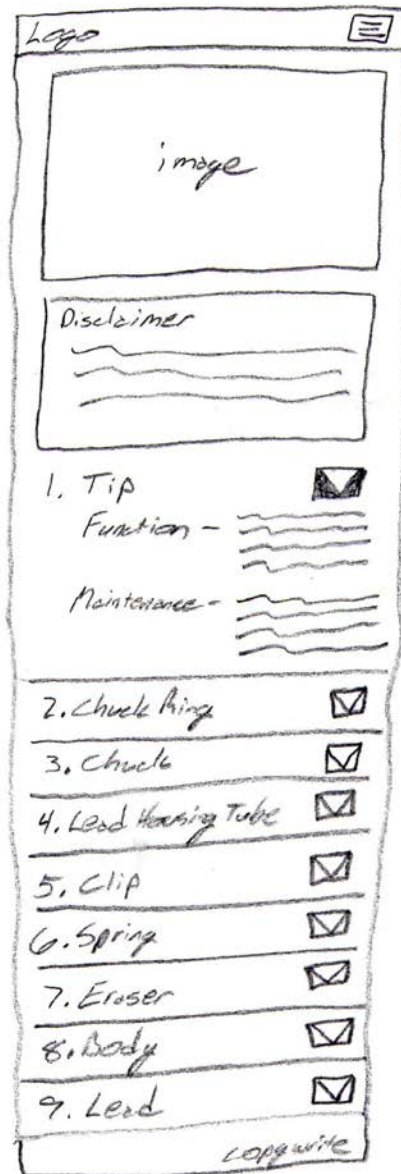


I actually liked how this version turned out. It mimicks the vision I have in my mind. But the functionality was not exactly how I had envisioned this mobile website. So I created another version of the diagram page.

## Mobile – Diagram – Version 2

Diagram - V2 - Mobile
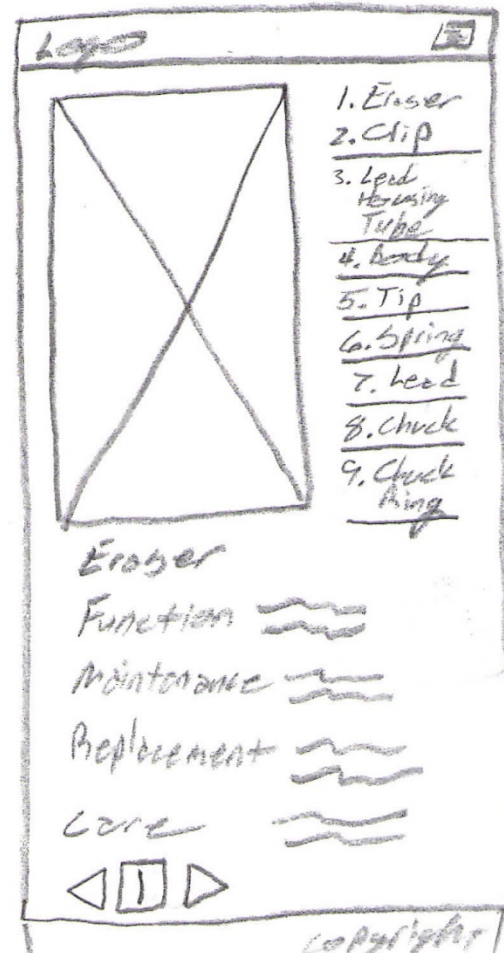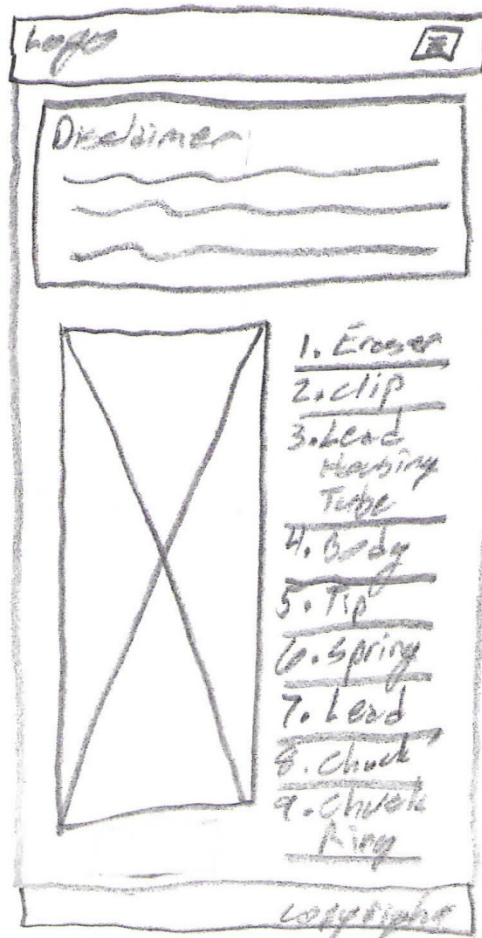


This version shows the landing page of the Diagram tutorial and the next page. This version makes a great deal of sense to me. To me, it is simple yet functional, but something still wasn't right. Maybe the other pages will reveal the solution.

# Wireframes

## Mobile – Infographics
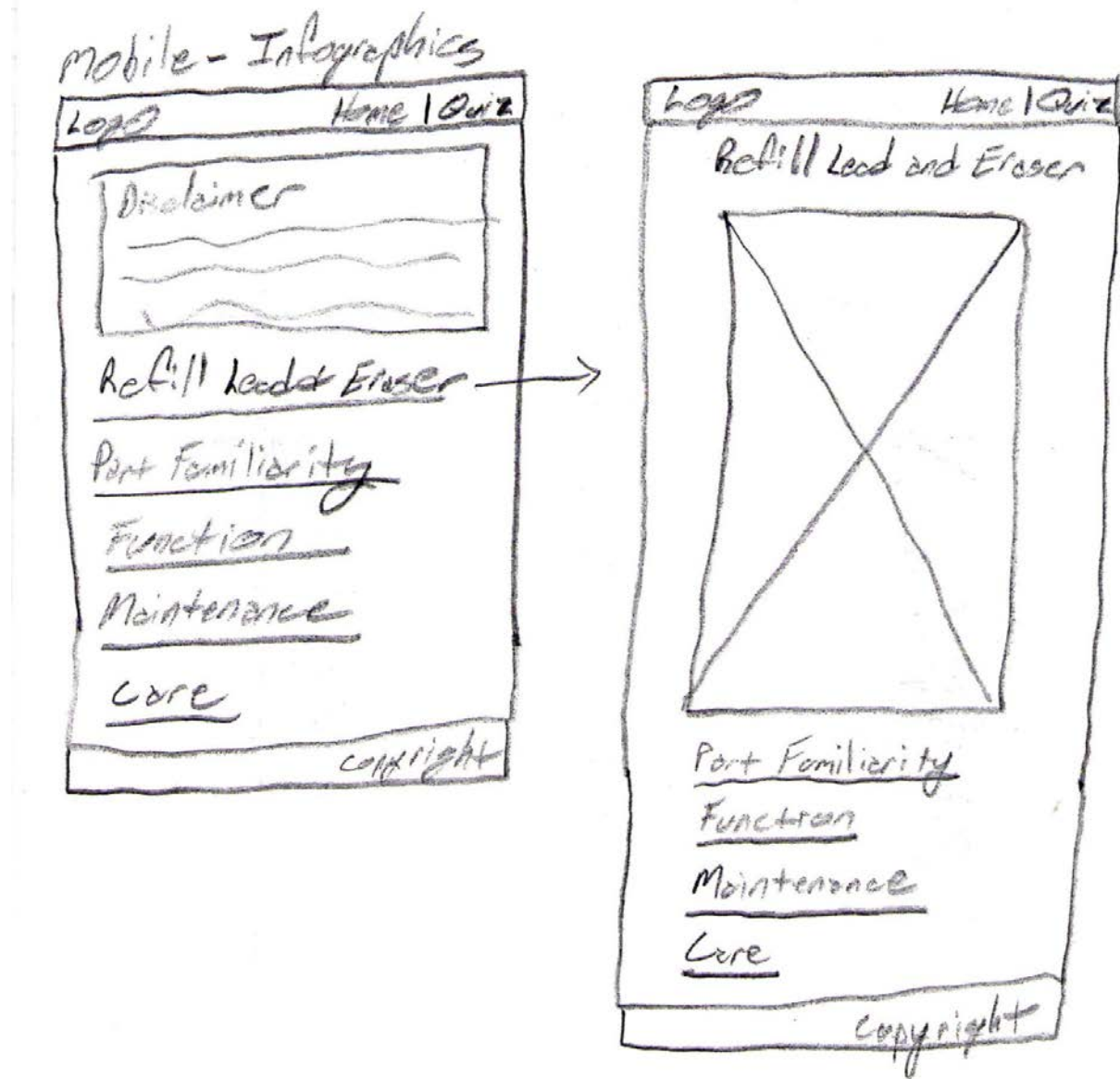


The mobile version of the Infographic page was about the easiest page to conceive. Not a lot of menu selections, which seemed to just clutter up the page. The site was slowly starting to take form.

# Wireframes

## Mobile – Step-by-Step – Version 1
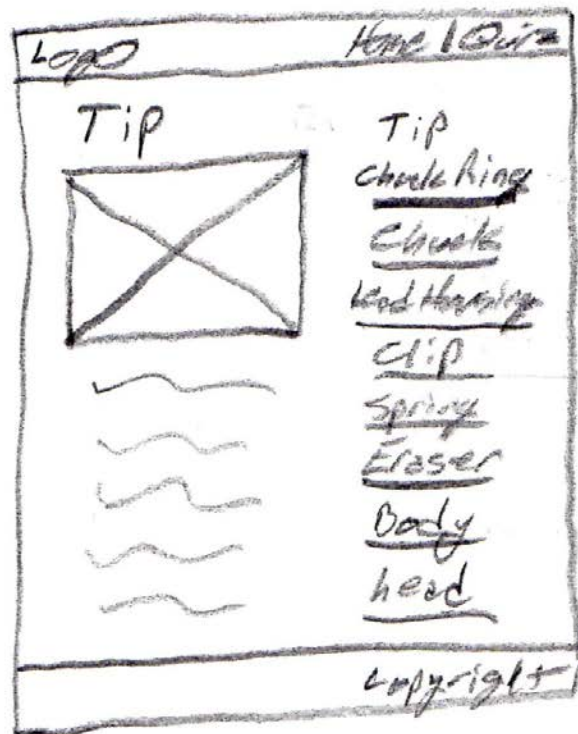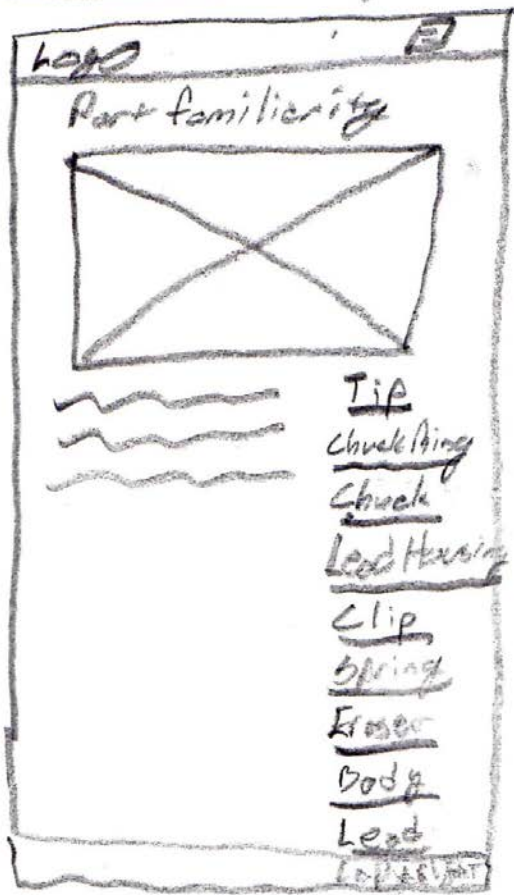


As you can see, there is a recurring theme that I've been trying to deal with. The mobile version of Step-by-Step fell back to the problem that I've been trying to deal with, and that is the menu list of parts. Finally, that is starting to make sense. I wonder if another version would be able to help me figure this out.

## Mobile – Step-by-Step – Version 2
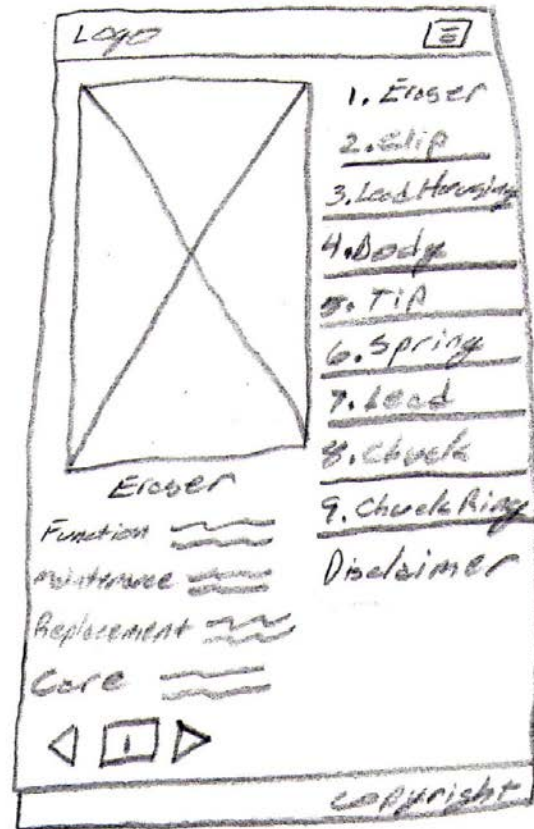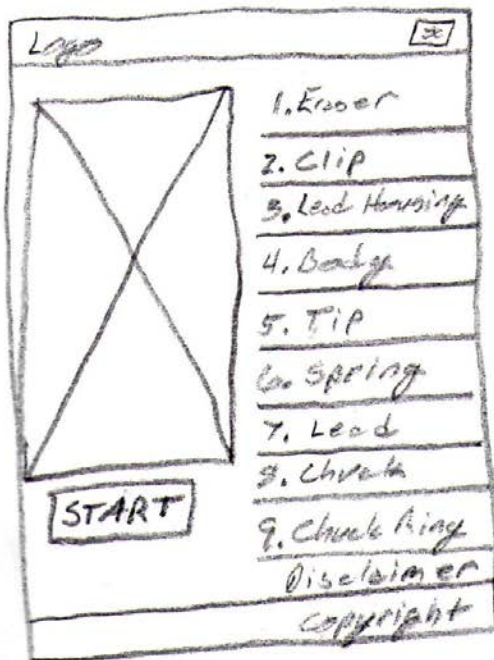


This version started out just the way I thought it would, however, the second page didn't help me solve that nagging feeling of "something isn't right." What is a designer to do when he can't break out of his cyclical thinking? Put the wireframes aside and see what paper prototypes will tell him.
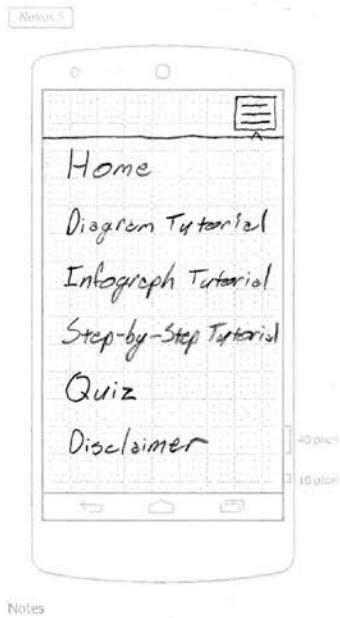
# Paper Prototype - Sketches

The paper protoype was used to test navigation ideas for the Diagram page. Since most of what we learned in the classroom dealt with mobile versions of websites, I wanted to create this for mobile and see what I could come up with for a navigation solution.
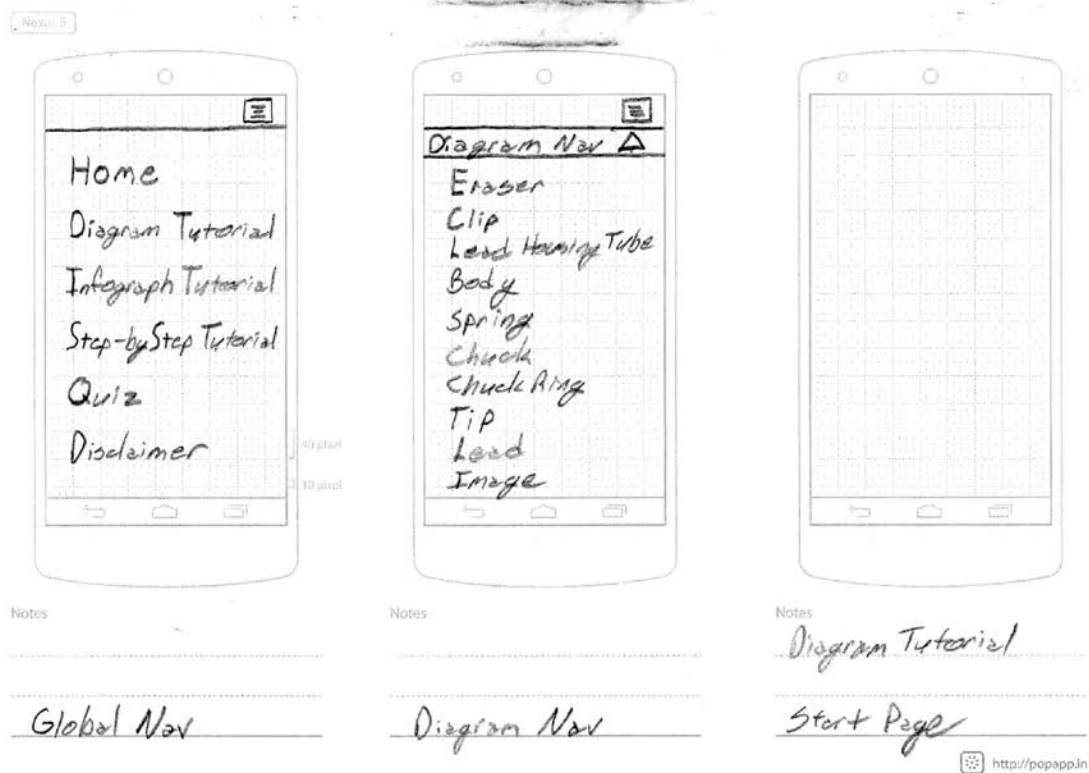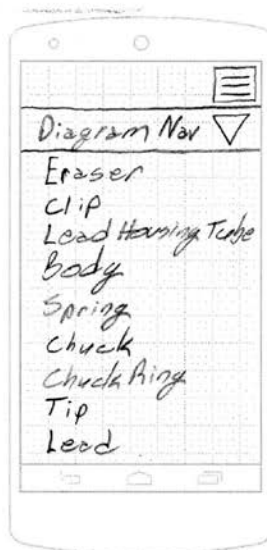


Preliminary sketches of what I thought the navigation should look like for the paper prototype testing. Too many items in the Diagram Navigation, caused me to rethink this idea.
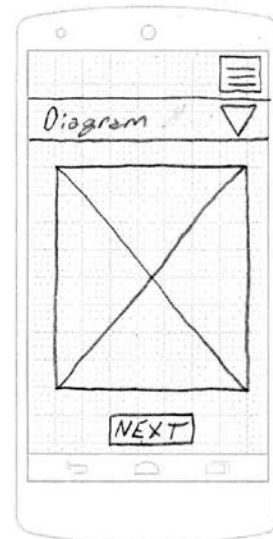
Nexus 5

Home

Diagram Tutorial

Infograph Tutorial

Step-by-Step Tutorial

Quiz

Disclaimer

40 pixel

10 pixel

Notes

Global Nav

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Diagram Nav ▽

Eraser
Clip
Lead Housing Tube
Body
Spring
Chuck
Chuck Ring
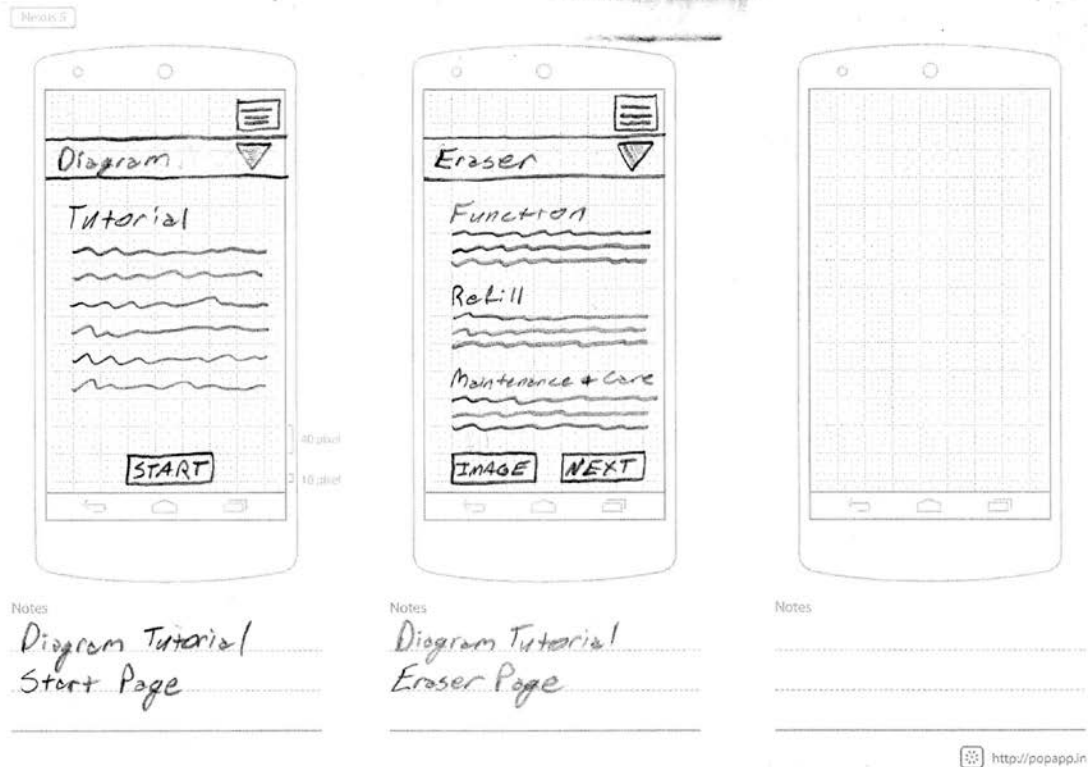Tip
Lead

Notes

Diagram Nav

---

Diagram ▽



NEXT

Notes

Diagram Tutorial
Diagram Page

I decided to remove the diagram image from the Diagram Navigation. This would allow a little more room for the parts menu.

The completion of the sketches for the paper prototype. Once in the tutorial, I wanted the user to be able to access the image of the Diagram whenever they wanted to, so I added a button for the image.

# Paper Prototype

The paper protoype was used to test navigation ideas for the Diagram page. Since most of what we learned in the classroom dealt with mobile versions of websites, I wanted to create this for mobile and see what I could come up with for a navigation solution.



The images above are of the landing page for the site and the global navigation. Very simple and functional.

## Diagram Tutorial

When you click on the Start button below, you will be shown an image of the mechanical pencil taken apart with each part numbered. Click next to learn about each part in numerical order. If, at any time, you need to see the image of the mechanical pencil or wish to see a different part of the pencil, just click on the down arrow above and a navigation will drop down for you to select a part or the diagram.

At the end of the tutorial, you will be asked to take a quiz on what you have learned. Results will be emailed to you.

**Disclaimer:**
These tutorials are specific to this product. Not responsible for product failure if you do not follow the care and maintenance in this tutoria. The color of the product in the images is completely arbitrary and has no impact on the tutorials.
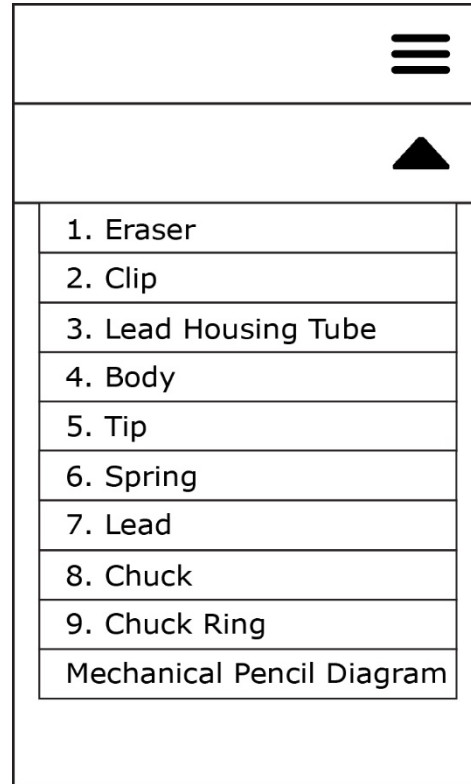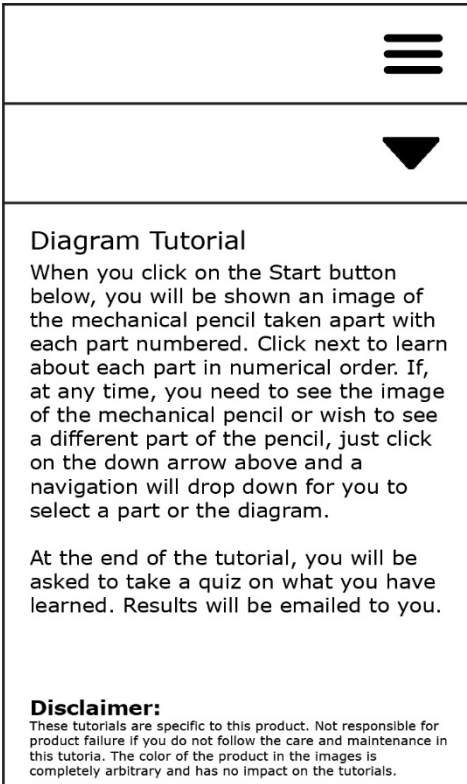
1. Eraser
2. Clip
3. Lead Housing Tube
4. Body
5. Tip
6. Spring
7. Lead
8. Chuck
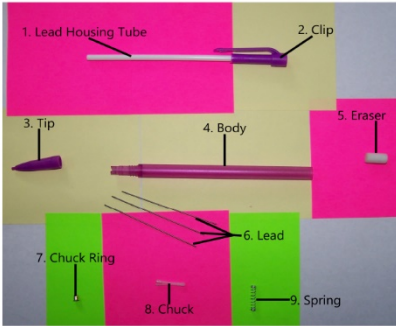9. Chuck Ring
Mechanical Pencil Diagram

These two images are the landing page for the Diagram tutorial and the Diagram tutorial navigation dropdown. As I see it, this was the easiest way to solve the menu problem I encountered with the wireframes.

These two images are of the Diagram image page. Click on the Next button and your get the eraser page of the Diagram Tutorial.

# Paper Prototype - Results

Here are the results from my Paper Prototype testing. The purpose of this testing was to determine if the navigation was intuitive for the user or not.

## Task 1

|  |  |
| --- | --- |
|  | **From the Home page, how would you proceed to the Eraser section of the Diagram Tutorial?** |
| User 1 | Click Diagram Tutorial Button. |
|  | User wants to click button before reading screen - Click Start Button. |
|  | Confusion about Next button. What does next mean |
|  | Maybe list next part with number or ("To 2. Clip") instead of Next |
|  | Diagram should have clickable numbers on it. |
|  | Clicked the Next button because there is nothing else to do. |
|  |  |
| User 2 | Click Diagram Tutorial |
|  | Click Start |
|  | Click Next |
|  |  |
| User 3 | Click Diagram Tutorial |
|  | Click Down Arrow |
|  | Click Eraser |

This task is to see how intuitive the navigation is without explanation within the site. The first user had the most confusion. No two users navigated to the Eraser page of the Diagram tutorial the same way.

## Task 2

|  |  |
| --- | --- |
|  | **What page are you on now?** |
| User 1 | Eraser Page |
|  |  |
| User 2 | Eraser Page |
|  |  |
| User 3 | Took about 10 seconds to figure out what page they were on |
|  | Eraser Page |

This task is meant for page identification. I wanted to find out if the users knew what page they were on at any given moment. Only one user had a bit of difficulty.

## Task 3

**How do you know?**

User 1    It says Eraser at top
Add number

User 2    Says Eraser at top

User 3    Headline says Eraser

This task is a follow up on the previous task for page identification. I wanted to know how they knew which page they were on. All users identified the page correctly.

## Task 4

**Where can you find the Disclaimer?**

User 1    At bottom of the Home Page
I would always look for it at bottom of page

User 2    At bottom of Home Page

User 3    At bottom of the Home Page

Since the disclaimer was something mentioned while we were figuring out the learning objectives, I wanted to see if the users could locate the disclaimer. All the users found the disclaimer.

## Task 5

**From the Home page, where would you go to find maintenance of the Chuck Ring in the Diagram Tutorial?**

User 1    Click Diagram Tutorial
Click Dropdown Arrow
Click Chuck Ring

User 2    Click Diagram Tutorial
I don't know, click the Down Arrow?
Click Chuck Ring

User 3    Click Diagram Tutorial
Click Down Arrow
Click Chuck Ring

Since navigation was the major purpose for this testing, I wanted to see if the users could navigate to another area inside the diagram tutorial. All the users followed the same path to get to this new area of the diagram tutorial.

### Task 6

| | **From the Eraser Page, how would you navigate to the Home Page?** |
|---|---|
| User 1 | Click Global Nav button |
| | Click Home |
| | |
| User 2 | Click Global Nav button |
| | Click Home |
| | |
| User 3 | I don't know |

Going back to the Home page is a common occurrence, at least when I'm looking at sites. So, I wanted to see if the users could navigate to the Home page. One user could not figure out how to do this task.

### Task 7

| | **From the Home Page, where would you go to take the Quiz?** |
|---|---|
| User 1 | Would click on tutorial they were on |
| | Dropdown menu for tutorial |
| | Global Nav button |
| | |
| User 2 | Click Global Nav button |
| | Click Quiz |
| | |
| User 3 | Click Diagram Tutorial |
| | Click Down Arrow |
| | Click Global Nav Button |

Since a quiz is involved to test what the users have learned from the website, I felt it important to see if the users could actually find the Quiz page. Only one user was able to get to the quiz in two clicks. The other two didn't really know where to look.

The next set of results stems from user experience. I wanted to gauge what they thought of their experience with the tasks that they had to perform.

## Question 1

| | How easy was this experience? |
|---|---|
| User 1 | Add Quiz information to Home Page |
| | Diagram Tutorial Page consider bullet points |
| User 2 | Confusion about navigation |
| | Didn't know where to go to find parts |
| User 3 | Very easy |

Only one user felt that it was an easy experience without further insight. I probably should have pressed the issue a bit more with that user.

## Question 2

| | Did you find the navigation simple to learn? |
|---|---|
| User 1 | Fairly easy |
| User 2 | Not easy to learn |
| | Too many clicks to get to page they wanted |
| User 3 | Navigation was simple to learn |

Different responses for all three users. One found the navigation simple to learn, one felt it wasn't that hard to learn and one felt that it was really hard to learn.

## Question 3

| | Was the navigation easy to use? Explain |
|---|---|
| User 1 | Yes, navigation easy to use |
| | Very friendly |
| | Big buttons |
| User 2 | Sort of easy to use |
| User 3 | Yes, navigation was easy to use |
| | Big buttons |

This question works in conjunction with Question 2 in that I wanted to see if there were any issues with using the navigation. One user was reluctant at saying that the navigation was easy to use, but did not want to explain.

## Question 4

| | Should the quiz results be instant? |
|---|---|
| User 1 | Show quiz results immediately after quiz |
| | |
| User 2 | Show quiz results immediately after quiz |
| | |
| User 3 | Show quiz results immediately after quiz |

I wanted to know how the results of the quiz should be revealed to the user. Apparently, people want instant gratification from the quiz.

# Summary

After reviewing the responses to the tasks, I can conclude that page recognition was not an issue. However, site navigation was still an issue. With this prototype, I was trying to minimize scrolling on a mobile device. My initial thought was to include jQuery Accordion for the parts navigation. These results support that thought.

The questions support the site navigation from the tasks in that there was some confusion and not 100% user-friendly. Our initial plan was to email results of the quiz to the user, however, after questioning the users about instant results, I decided to show instant results and not worry about emailing the results at this time.

# Outcome

From these results, I have concluded that scrolling will occur no matter how hard I try to design around it. So I might as well not fight it and design the site with jQuery Accordion for the menus on the three tutorial pages. This will minimize the amount of pages created and hopefully keep the size of the site down as well.
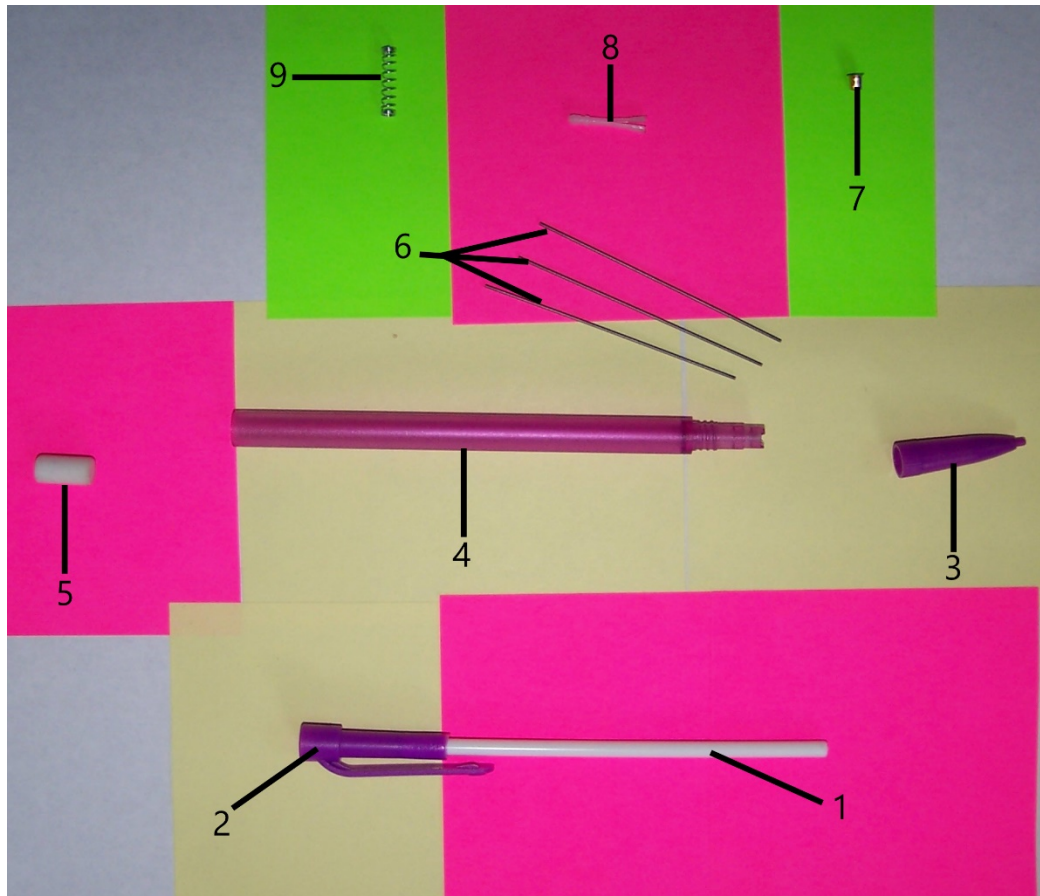
# Skills Website Quiz Questions

My many iterations of the quiz for the skills website.

## Questions – Version 1

1. Using the image below, identify the parts of the mechanical pencil:

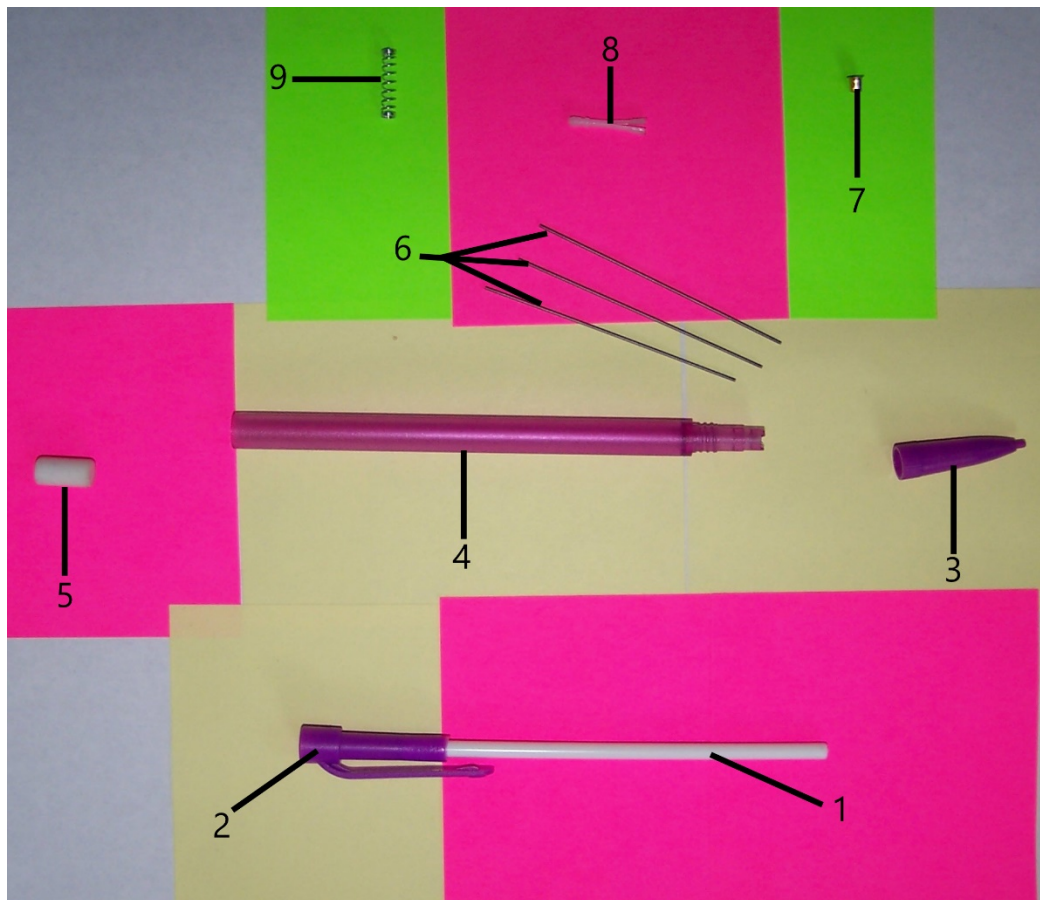| | |
|---|---|
| 1._____ | Chuck Ring |
| 2._____ | Chuck |
| 3._____ | Spring |
| 4._____ | Lead |
| 5._____ | Clip |
| 6._____ | Eraser |
| 7._____ | Lead Housing Tube |
| 8._____ | Tip |
| 9._____ | Body |

2. What is the size of the lead used in this mechanical pencil?
a. 0.5mm
b. 0.7mm
c. 0.9mm
d. 0.3mm

3. TRUE or FALSE: To remove the remainder of the eraser from the body of the pencil you shake the pencil until it falls out.

4. How do you clean the eraser?
a. Rub it on your pants
b. Use a duster
c. Use a vacuum
d. Run it under warm water

5. TRUE or FALSE: The chuck ring is a ring given by a guy named Chuck.

6. TRUE or FALSE: The clip is used to clip the mechanical pencil on to your shirt pocket.

7. What is the first thing you do when the lead will not advance?
a. Throw the pencil out
b. Check to see if there is any lead in the pencil
c. Sit and cry
d. Take the pencil apart and see where the problem resides.

8. How do you advance the lead?
a. Twist the tip
b. Push down on the eraser
c. Click the clip
d. Use a pencil sharpener

9. TRUE or FALSE: The eraser cannot be replaced.

10. What is the best care you can give your mechanical pencil?
a. Chew on it while you are busy.
b. Use it on a regular basis.
c. Keep it in your desk drawer.
d. Never use it and keep it in its original packaging for retirement

I initially wanted to make the quiz a bit more on the fun side after having to peruse through the parts of the mechanical pencil. After reflecting on these questions I had made a decision.

# Questions – Version 2

1. Using the image below, identify the parts of the mechanical pencil:

| | |
|---|---|
| 1._____ | Chuck Ring |
| 2._____ | Chuck |
| 3._____ | Spring |
| 4._____ | Lead |
| 5._____ | Clip |
| 6._____ | Eraser |
| 7._____ | Lead Housing Tube |
| 8._____ | Tip |
| 9._____ | Body |



2. What is the size of the lead used in this mechanical pencil?

a. 0.5mm

b. 0.7mm

c. 0.9mm

d. 0.3mm

3. TRUE or FALSE: To remove the remainder of the eraser from the body of the pencil you shake the pencil until it falls out.

4. How do you clean the eraser?
a. Rub it on your pants
b. Use a duster
c. Use a vacuum
d. Run it under warm water

5. TRUE or FALSE: The chuck ring is a ring given by a guy named Chuck.

6. TRUE or FALSE: The clip is used to clip the mechanical pencil on to your shirt pocket.

7. What is the first thing you do when the lead will not advance?
a. Throw the pencil out
b. Check to see if there is any lead in the pencil
c. Sit and cry
d. Take the pencil apart and see where the problem resides.

8. How do you advance the lead?
a. Twist the tip
b. Push down on the eraser
c. Click the clip
d. Use a pencil sharpener

9. TRUE or FALSE: The eraser cannot be replaced.

I decided to remove the 10th question because I felt it didn't have any relevance to the tutorial. After a few discussions in class, I also felt that my fun questions were a bit much.

# Questions – Third Version

1. Using the image below, identify the parts of the mechanical pencil:

| | |
|---|---|
| 1._____ | Chuck Ring |
| 2._____ | Chuck |
| 3._____ | Spring |
| 4._____ | Lead |
| 5._____ | Clip |
| 6._____ | Eraser |
| 7._____ | Lead Housing Tube |
| 8._____ | Tip |
| 9._____ | Body |
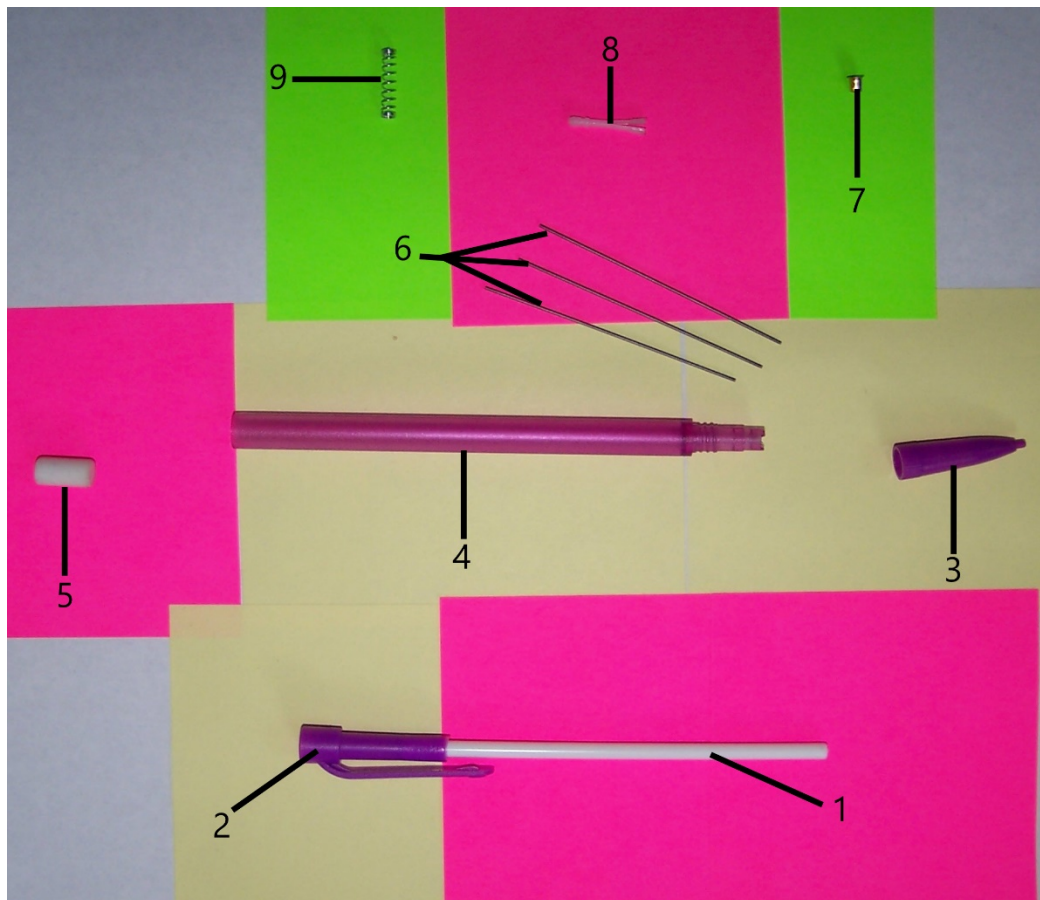


2. What is the size of the lead used in this mechanical pencil?

a. 0.5mm

b. 0.7mm

c. 0.9mm

d. 0.3mm

3. How do you clean the eraser?
a. Rub it on your pants
b. Use a duster
c. Use a vacuum
d. Run it under warm water

4. TRUE or FALSE: The clip is used to clip the mechanical pencil on to your shirt pocket.

5. What is the first thing you do when the lead will not advance?
a. Throw the pencil out
b. Check to see if there is any lead in the pencil
c. Sit and cry
d. Take the pencil apart and see where the problem resides.

6. How do you advance the lead?
a. Twist the tip
b. Push down on the eraser
c. Click the clip
d. Use a pencil sharpener

7. TRUE or FALSE: The eraser cannot be replaced.

So, the results after two version is a more concise quiz. I was excited to be able to have a working match question. That was soon turned asunder when a classmate pointed out to me that the matching didn't work on the phone. I tried to find a solution, but I couldn't find one that actually worked. So, the matching question had to go.

# Questions – Final Version

1. What is the size of the lead used in this mechanical pencil?
a. 0.5mm
b. 0.7mm
c. 0.9mm
d. 0.3mm

2. How do you clean the eraser?
a. Rub it on your pants
b. Use a duster
c. Use a vacuum
d. Run it under warm water

3. TRUE or FALSE: The clip is used to clip the mechanical pencil on to your shirt pocket.

4. What is the first thing you do when the lead will not advance?
a. Throw the pencil out
b. Check to see if there is any lead in the pencil
c. Sit and cry
d. Take the pencil apart and see where the problem resides.

5. How do you advance the lead?
a. Twist the tip
b. Push down on the eraser
c. Click the clip
d. Use a pencil sharpener

6. TRUE or FALSE: The eraser cannot be replaced.


I feel these 6 questions suit our learning objectives. The user will have to know the part in question for all questions. Functionality is addressed in questions 3 and 5. Maintenance and Care are addressed in questions 2 and 4. Refill and replace are addressed in questions 1 and 6. This final version of Quiz Questions is more concise and covers the learning objectives put forth by the class.
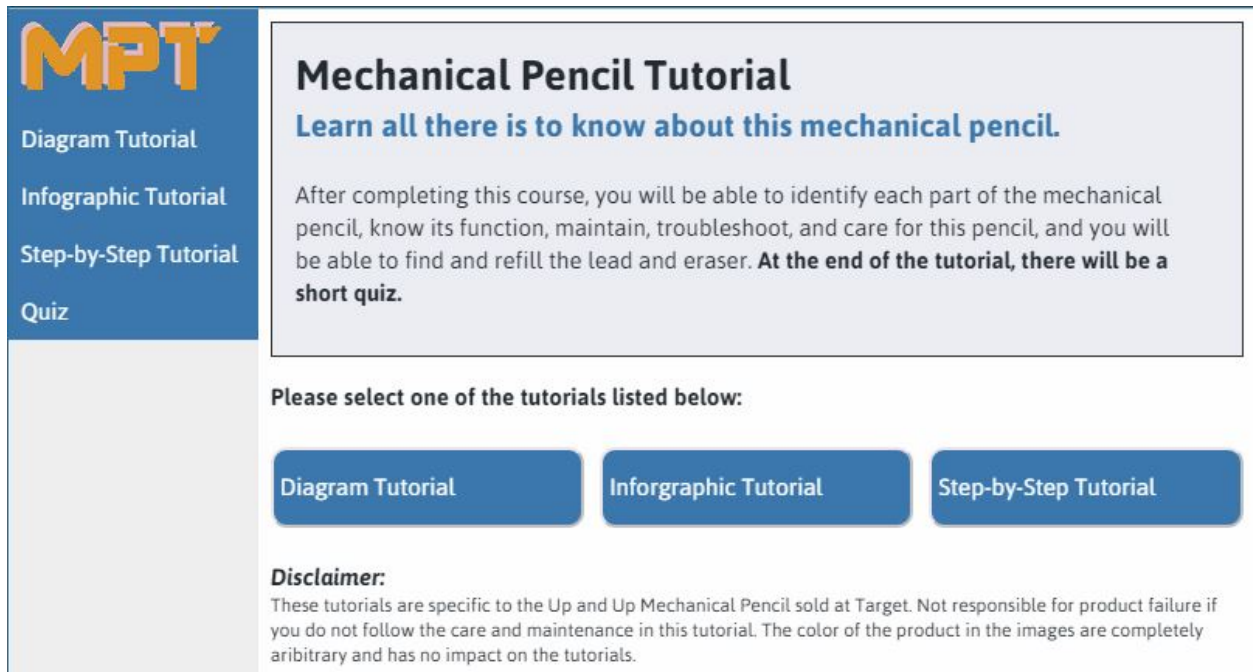
# Skills Website – Version 1

A long time ago, while searching for solutions to responsive navigation, I found a free download called StickyMenu. I haven't used it on a project yet, and felt it was suitable for this one.

## Desktop Homepage
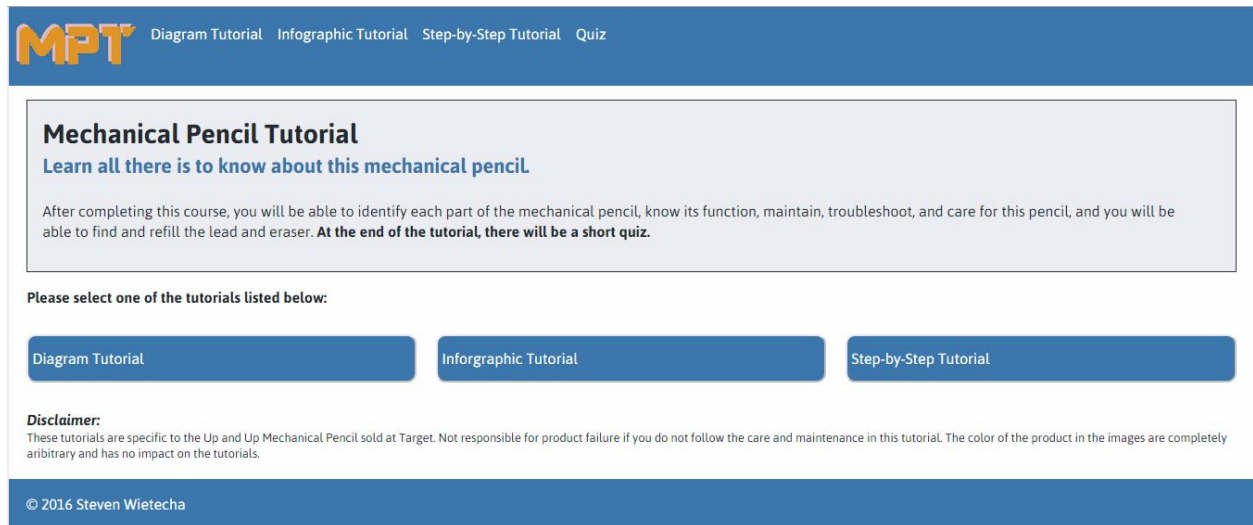


I liked the clean layout of this design.

## Tablet Homepage



I liked how responsive the navigation is.

## Mechanical Pencil Tutorial

**Learn all there is to know about this mechanical pencil.**

After completing this course, you will be able to identify each part of the mechanical pencil, know its function, maintain, troubleshoot, and care for this pencil, and you will be able to find and refill the lead and eraser. **At the end of the tutorial, there will be a short quiz.**

**Please select one of the tutorials listed below:**

Diagram Tutorial

Inforgraphic Tutorial

Step-by-Step Tutorial

**Disclaimer:**
These tutorials are specific to the Up and Up Mechanical Pencil sold at Target. Not responsible for product failure if you do not follow the care and maintenance in this tutorial. The color of the product in the images are completely aribitrary and has no impact on the tutorials.

However, it was pointed out to me that there seems to be a lot of space on the left side. After looking at it myself, I figured out why there is that space. For the mobile menu, it requires an image and this image is taking up space along the left side. So that is why I have never used StickyMenu before.

# Skills Website – Version 2

After the complete failure of Version 1, I decided that I would start from scratch and rebuild the website. I started with the main sections of the page, styled them out and then added the content.
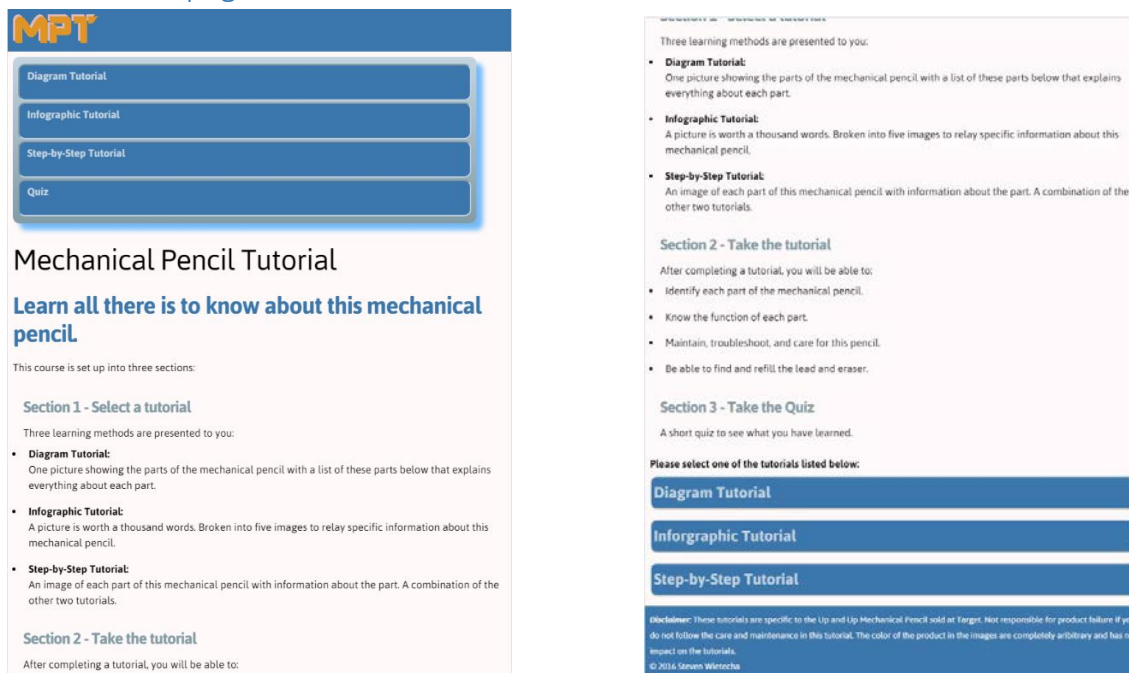
## Desktop Homepage
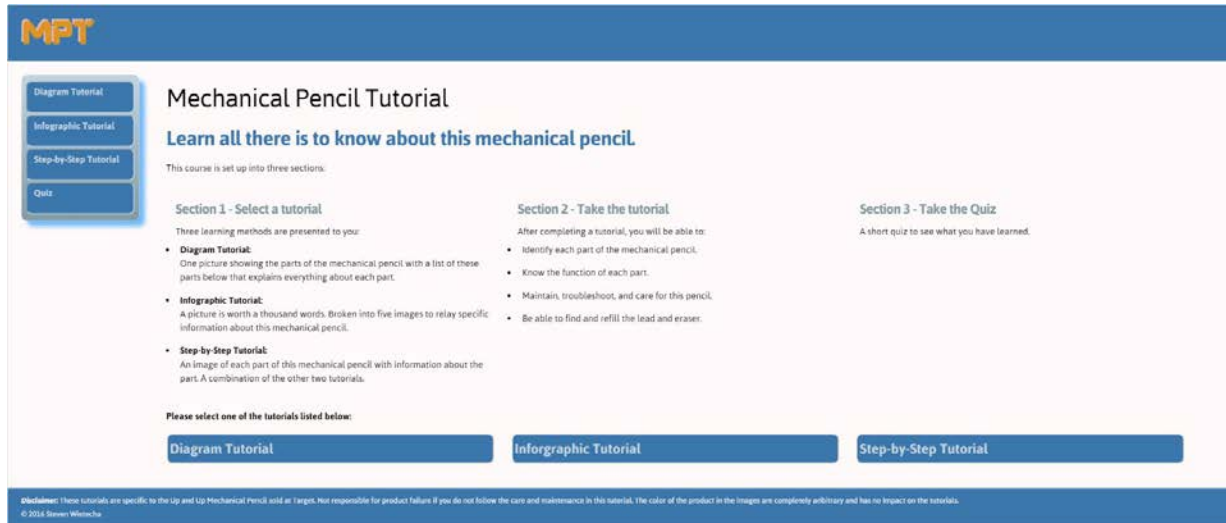


This version felt a lot better because I understood why things worked the way they did.

## Tablet Homepage



Using media queries I was able to get the navigation to respond the way I thought it should.

**MPT**

Diagram Tutorial

Infographic Tutorial

Step-by-Step Tutorial

Quiz

# Mechanical Pencil Tutorial

## Learn all there is to know about this mechanical pencil.

This course is set up into three sections:

### Section 1 - Select a tutorial

Three learning methods are presented to you:

- **Diagram Tutorial:**

### Section 1 - Select a tutorial

Three learning methods are presented to you:

- **Diagram Tutorial:**
  One picture showing the parts of the mechanical pencil with a list of these parts below that explains everything about each part.

- **Infographic Tutorial:**
  A picture is worth a thousand words. Broken into five images to relay specific information about this mechanical pencil.

- **Step-by-Step Tutorial:**
  An image of each part of this mechanical pencil with information about the part. A combination of the other two tutorials.

### Section 2 - Take the tutorial

After completing a tutorial, you will be able to:

- Identify each part of the mechanical pencil.

- Know the function of each part.

- Maintain, troubleshoot, and care for this pencil.

- Be able to find and refill the lead and eraser.

### Section 3 - Take the Quiz

A short quiz to see what you have learned.

Please select one of the tutorials listed below:

An image of each part of this mechanical pencil with information about the part. A combination of the other two tutorials.

### Section 2 - Take the tutorial

After completing a tutorial, you will be able to:

- Identify each part of the mechanical pencil.

- Know the function of each part.

- Maintain, troubleshoot, and care for this pencil.

- Be able to find and refill the lead and eraser.

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A short quiz to see what you have learned.

Please select one of the tutorials listed below:

**Diagram Tutorial**

**Inforgraphic Tutorial**

**Step-by-Step Tutorial**

**Disclaimer:** These tutorials are specific to the Up and Up Mechanical Pencil sold at Target. Not responsible for product failure if you do not follow the care and maintenance in this tutorial. The color of the product in the images are completely aribitrary and has no impact on the tutorials.
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I was really enjoying how this website responded to different sizes. It felt more professional than the first version. Now I had to see what other people felt about this site.

# Website Test Questions

For testing the website, I sent the link out to a few people and asked them to proof the site for any spelling errors, grammatical errors and broken links. I then asked them these questions to get a feel for the navigation and content. I also wanted to find out what they liked about the site and what could be improved upon.

1. Was the navigation easy to use? If not, what were the challenges
2. Should there be more content to explain parts, function, refill, maintenance & care, troubleshooting?
3. What did you like most of the site?
4. What did you like least of the site?

# Website Test Results

Know that I have been busy of late, I know that there were some errors. Grammatical errors were plentiful as were broken links. Everyone needs a few people willing to proof a project. Below are the results of the questions.

## Question 1

| | **Was the navigation easy to use? If not, what were the challenges.** |
|---|---|
| User 1 | Yes! |
| User 2 | Navigation was easy to use. |
| User 3 | Yes, save that there was no Home button |

After having navigation issues with the wireframes and the paper prototype, it was nice to see that the navigation was easy to use for most of the users who tested the site.

## Question 2

| | **Should there be more content to explain parts, functions, refill, maintenance & care, troubleshooting?** |
|---|---|
| User 1 | I didn't think of anything that was missing.<br>Your explanations are great - could maybe even be cut down a little more to be more concise.<br>They look great. |
| User 2 | I think there is plenty of content!<br>Love that I should throw out my pencil if the clip breaks. |
| User 3 | No. Everything seems well thought out. |

I wanted to know if I used enough content in my descriptions. Apparently, I have and could possibly reduce the amount of content.

## Question 3

**What did you like most of the site?**

| | |
|---|---|
| User 1 | I like that I can click on the MPT logo at the top to bring me back to the starting page. Pages seemed to load quickly Your Infographics look great!! |
| User 2 | Information is clear and consistent |
| User 3 | That there is three different tutorials so that no matter how you train, you can learn |

I used this question to see what the users liked about this site. As you can see, there are three different answers. Each person liked something different.

## Question 4

**What did you like least of the site?**

| | |
|---|---|
| User 1 | I would like to be able to see and click on a "Take Quiz" at the bottom of the tutorial pages without having to find it inside the last part description. |
| User 2 | Having to scroll up to read the top of each of the sections in the tutorials. |
| User 3 | When you expand the different sections of each tutorial, you have to scroll back up to get to the top of the section - very irritating |

I used this question to see what I needed to work on to improve this site. The jQuery Accordion has a nasty habit of moving each section up to the bottom of the previous section which causes a lot of scrolling. I have yet to find a solution to this annoying issue.

## Outcome

From this test, I have concluded that I will have to investigate the jQuery Accordion issue. I have also moved the "Take Quiz" button and moved it out of the last part description to the bottom of the accordion.