**PUI Assignment 8: Informational Tool**

**Part 1:**

This website is designed to provide a fun, engaging entry point for users to learn about the basic parts of an Extravehicular Mobility Unit (EMU) astronaut suit. This includes some basic facts about the suit as a whole as well as information blocks offering the user an opportunity to take a deeper dive into the content. The information blocks include some interesting facts about the suit parts, with a casual, informative tone. As I’m imagining my target audience as older elementary to middle school students, I wanted to keep my site approachable and fun, while also conveying the most interesting information to increase the likelihood of internalization. I do know from user testing and showing my site to my peers that the site is of interest to and provides valuable information for not just kids, but also adults with any interest in space. My site benefits from the topic area—many people have a natural interest in space, which makes my job of making the site engaging much easier. However, the slowly drifting stars set the atmosphere of the site and draw the user in, while the interactive (giving the user the control!), spinning spacemen adds an element of fun and whimsy that keeps user on the site and clicking throughout all of the suit parts of the EMU.

**Part 2:**

**Desktop views:**

* Click on any part of the EMU suit of interest. A tooltip will show up on hover over the parts that are clickable, providing some affordance and giving the user an advance idea of what they can to learn about.
* To return to the original view, users can either click the same suit part again (this will work for suit parts where the primary EMU image shifts position, including the helmet, gloves, upper torso and lower torso areas) or they can click the “Return to Suit” link at the bottom of each info paragraph or “The Suit” at the top left of the page.
* **For example:**
  + Click the helmet.
  + Read the information.
  + Click the helmet again to return to the suit.
  + Click the liquid cooling and ventilation garment (right arm).
  + Read the information.
  + Click the “Return to Suit” link at the bottom of the

**Mobile views:**

* Click on the caret beside “The Suit” in the top right of the page to get a dropdown menu of suit parts and options. Click on any of these for further information.
* To change to a new part, click “The Suit” or the “Return to Suit” link.
* Select a new suit part to read about.
* **For example:**
  + Click the caret beside “The Suit.”
  + Select “Lower Torso Assembly.”
  + Read the information.
  + Click the “Return to Suit” link.
  + Click the caret beside “The Suit.”
  + Select “SAFER.”
  + Read the information.

**Part 3:**

I used a combination of JQuery and CSS animations, transitions and keyframes to execute the interactions with my EMU suit and site. While I looked into many animation libraries, the offered presets limited the control and specificity and differences I wanted to implement with each user click, leading me to create unique transitions and interactions for each click, adding targeted specificity to each suit part. These unique animations added visual interest and engagement for each suit part and information block, appropriate for the age group I’m targeting.

**Part 4:**

While the core of my idea (an interactive, clickable EMU suit with additional information) remained the same, I did add a few additional elements to build in some moments of delight. These include my slowly moving stars (adding atmosphere) and my continuous animation for the SAFER jetpack (which is just fun).

**Part 5:**

Because of the animations on my site, and the way my EMU suit travels across the page, I was unable to use bootstrap for responsive purposes, meaning I had to figure out and write a bunch of media queries changing the positioning and animations for each element. I also had a lot of trouble trying to organize the content on different screen sizes, since I only have one html page and am basically just hiding the informational content until it is “called”—overcoming this just required a lot of trial and error. Further, I found a few seemingly simple things very difficult—I wanted to add a fun cursor and style my tooltips as you hover over the EMU suit, but these tasks proved to be blocked due to the bootstrap library.

**Resources:**

**Tooltips:**

https://codepen.io/anon/pen/pVGKpW

<https://www.w3schools.com/css/css_tooltip.asp>

**Animations:**

https://css-tricks.com/controlling-css-animations-transitions-javascript/

https://codepen.io/vineethtr/pen/XKKEgM

https://robots.thoughtbot.com/transitions-and-transforms

http://jsfiddle.net/9agtb339/1/

**Stars:**

https://css-tricks.com/examples/StarryNightCSS3/