

Version	Commit
1.0.0	Initial commit
1.0.1	Added card template for first set of variables - unstyled
1.0.2	Added 2 rows of cards and images for calculator
1.0.3	Added vehicle length to the calculator cards
1.0.4	Added first form ready for functionality
2.0.0	Added the seven calculator variables
2.0.1	Initial calculator scripts in operation - checked and working
2.1.0	Calculator skeleton completed and checked
2.1.1	Added units to calculations and dilemma zone number
2.2.0	Added logos and Raleway font
2.2.1	Fixed image heights for mobile on cards
2.2.2	Added JS dependencies and popover abilities for cards
2.2.3	Fixed units for intersection distance
2.2.4	Added unit functionality basics
2.2.5	Added conversion for velocity and distance
2.2.6	Fixed decimal places for outputs
2.2.7	Added modal for calculator output
2.2.8	Added form reset
2.2.9	Fixed input to prevent letters or incorrect decimal places being added on calculator
2.2.10	Added code to prevent blank input, not working. Removed individual form tags for one form
2.2.11	Fixed the blank field notification function

- 2.2.12 Fixed modal opening to only open when form submission is correct and complete
- 2.2.13 Added icons for DZ and OZ outputs not styled
- 2.2.14 Fixed card heights images and widths
- 2.2.15 Adjusted colors for divs and cards - corrected css for index page
- 2.2.16 Fixed icon positions colors and size in modal popup
- 2.2.17 Fixed error displaying incorrect average vehicle length
- 2.2.18 Fixed spelling errors and removed negative symbol from dilemma zone calculation
- 2.3.0 Added emailjs functionality to contact form
- 2.4.0 Added game page with reaction timer to be scripted
- 2.4.1 Added some functionality to timer before red light comes on
- 2.4.2 Added working prototype of the reaction timer game - unstyled
- 2.4.3 Fixed timer continuing after brake button pushed
- 2.4.4 Added reset functionality to the reaction timer
- 2.4.5 Fixed issue of modal opening on reload
- 2.4.6 Fixed accidental mouse scrolling changing input numbers
- 2.4.7 Added Facebook share button to footer
- 2.5.0 Added two cards and template style for help page
- 2.5.1 Fixed text going off cards on small devices
- 2.5.2 Added second row of cards on help page
- 2.5.3 Added all cards to the help page
- 2.5.4 Fixed mathjax equation extending offscreen on small devices
- 2.6.0 Added Facebook share button to game modal - prototype not sending result through

- 2.6.1 Fixed Facebook share button added privacy policy for Facebook app usage
- 2.6.2 Added t&c for Facebook app usage
- 2.6.3 Tested Facebook sharing as working added meta information
- 2.6.4 Fixed links in footer
- 2.7.0 Added random movement for the brake button in reaction time game
- 2.8.0 Added local storage for highscore - prototype only
- 2.8.1 Fixed so that highscores can be shared to Facebook
- 2.8.1a Fixed missing semicolon in game.js
- 2.8.2 Fixed scrolling on start button push in Reaction Time game
- 2.9.0 Added instructions page as help for the test yourself page
- 2.9.1 Fixed navbar links and removed non-essential script loaders
- 2.9.2 Added unicode and mark-up for option selection and popovers
- 2.9.3 Added Google Map functionality to the test yourself page
- 2.9.4 Added marker and map click functionality
- 2.9.5 Added multiple map functionality and added second map for testing purposes
- 2.9.6 Added 5 maps to the test yourself page ready for use
- 2.9.7 Removed instructions page replaced with help buttons on the test yourself page
- 2.10.0 Add 404 page for lost users and unstyled question for test\_yourself.html
- 2.11.0 Add new spacer values in CSS for larger padding values
- 2.11.1 Add new styles to background and headings of all pages for increased clarity and contrast
- 2.11.2 Add new names for css classes to better reflect their position
- 2.12.0 Add styles to buttons for forms and help for increased visibility

- 2.12.1 Add unicode icons to input buttons on calculator form for increased visibility
- 2.12.2 Add unicode to buttons that displays on Android devices
- 2.13.0 Add random variables for users to calculate on test\_yourself.html
- 2.13.1 Add distancePhase calculation for the answer checker on test\_yourself.html
- 2.13.2 Add else if statements for coefficient of friction required for stopping distance calculation test\_yourself.html
- 2.13.3 Add final zone calculation for checker to determine if negative or positive on test\_yourself.html
- 2.13.4 Add option or dilemma zone checker for test\_yourself.html
- 2.13.4a Fixed Facebook share button not displaying on Chrome not fixed for Firefox
- 2.13.4b Fix Facebook share button for Firefox and remove reaction time categories
- 2.13.5 Remove else if statements replace with concatenation for ease of calculation test\_yourself.js
- 2.13.6 Fix button centering on test\_yourself.html
- 2.13.7 Add refresh for users to get new random scenarios on test\_yourself.html
- 2.13.8 Add buttons to all maps on test\_yourself.html for users to get random scenarios or refresh
- 2.13.9 Add data for map two for random scenario on test\_yourself.html
- 2.13.10 Change test\_yourself.js to new calculation for ease of processing
- 2.13.11 Add modals for test\_yourself.html so users can get randomised data
- 2.13.12 Add map two - five variables for test\_yourself.htm so users can acquire the data
- 2.13.13 Fix code alignment on all pages for ease of reading the code
- 2.13.14 Fix code indentation on test\_yourself.html to help read and correct code
- 2.13.15 Add disabled Current Scenario buttons to prevent clicking before data is added
- 2.13.16 Fix button padding on test\_yourself.html for mobile users
- 2.13.17 Fix button margins on test\_yourself.html for large device users

- 2.13.17a Fix padding at bottom of divs where maps are present in test\_yourself.html
- 2.13.18 Add checkboxes and input number value for user to answer zone type in test\_yourself.html
- 2.13.19 Add remaining map zone calculations for user input and checking
- 2.13.20 Add calculation results statements to reflect the outcome of the user input
- 2.13.21 Add console.log to make it easier on examiners to see computed outputs
- 2.13.22 Fixed results to show user their value and the accepted values correctly
- 2.13.23 Fix results map five to show user their correct accepted value
- 2.13.24 Fix line wrapping on all map outputs in test\_yourself.html
- 2.13.24a Fix grammar and punctuation on all map outputs in test\_yourself.html
- 2.13.24b Fix typeset bold for user calculations on test\_yourself.html
- 2.13.25 Add user ability to get a perfect score in test\_yourself.html
- 2.13.26 Fix user input going over 2 decimal places on test\_yourself.html
- 2.13.27 Fix user input to allow up to 2 decimals and no non-numbers at test\_yourself.html
- 2.13.28 Fix user outputs for wrong zone close number on test\_yourself.html
- 2.13.29 Add table to test\_yourself.html to help identify coefficient of frictions
- 2.13.30 Add new variables for climate on test\_yourself.js not randomised
- 2.13.31 Add random variables for coefficient of friction in rainy conditions
- 2.13.32 Add random variables for coefficient of friction for all maps all conditions
- 2.13.33 Fix variables on map 3 for realism
- 2.13.34 Add random variables for coefficient of friction for all maps dry conditions
- 2.14.0 Add home page header footer template move calculator page
- 2.14.1 Add meta og tags to each sharable page

- 2.14.2 Add table styling for coefficient of friction data on test\_yourself.html
- 2.14.3 Add data modal for friction on help.html remove external link
- 2.14.3a Fix spelling of coefficient in all pages
- 2.14.4 Fix double space and line breaks in test\_yourself.js
- 2.15.0 Adjust colors on all pages
- 2.15.1 Add reset button to test\_yourself.html modals for user input values
- 2.15.2 Add labels for console logs for test\_yourself.js
- 2.15.3 Add prevention of more than 2 decimal places on cards on calculator except reaction time with 3 decimals
- 2.15.4 Add margin space between header and content and footer and content for aesthetics
- 2.16.0 Add index.html template for a landing page
- 2.16.1 Add buttons and dropdowns for index.html cards to the other on site pages
- 2.16.2 Fix floating point decimals from truncate function to avoid user incorrect input
- 2.16.3 Fix author image on mobile screens and large screens
- 2.17.0 Fix final equation in mathjax on help.html to fit on one line per equation on large devices
- 2.18.0 Start refactoring the test\_yourself.js file
- 2.18.1 Replace validate script in calculator and test\_yourself.js to allow max 3 and 2 decimal places
- 2.18.2 Fix decimal place values on test\_yourself.html for user inputs
- 2.19.2 Test refactored refactor\_test\_yourself.html and refactor\_test\_yourself.js ready for incorporation
- 2.19.3 Fix vanishing final equation on small screen
- 2.19.4 Add climate conditions for refactor\_test\_yourself.js for testing purposes
- 2.19.5 Fix map Five to allow for correct calculations and user input
- 2.19.6 Fix refactor\_test\_yourself.js to prevent overwrite of global variable for mapNumber

- 2.20.0 Fix navbar expand burger toggle so it appears earlier to prevent text wrapping in the navbar links
- 2.20.1 Fix spelling errors for all h and p tags by using online spell checker
- 2.21.0 Delete obsolete files of test\_yourself and replace with refactored versions
- 2.21.1 Fix icon in sendemail.js button for submission
- 2.21.2 Convert variables on test\_yourself to camel case after refactoring both js and html
- 2.21.3 Fix unsubmitable inputs after current button pushed in test\_yourself.html
- 2.21.3a change all units in CSS to be in px
- 2.21.3b Remove Current button due to poor user experience
- 2.21.4 Adjust brake button on game to stay within new borders for the card
- 2.21.5 Fix invalid input for friction on calculator.html
- 2.21.5a Fix warning labels for invalid input on friction for the calculator.html
- 2.21.5b Fix input from user when friction > 1
- 2.21.5c Fix navbar toggler on index page
- 2.22.0 Remove onclicks in html and add eventListeners in JS on calculator.html and js
- 2.22.0a Remove onclicks in html and add eventListeners in JS on game.html and js
- 2.22.0b Remove onclicks in html and add eventListeners in JS on test\_yourself.html and js reset button not visible
- 2.22.0.c Add validity checker for input on test\_yourself.js functionality only partial
- 2.22.0.d Adjust validity checker for input on test\_yourself.js functional but slow
- 2.22.0.e Add restructured test\_yourself.html file to replace existing
- 2.22.1 Prevent pop-up bubble for invalid input and template new invalid input messages
- 2.23.0 Add framework for pop-over alerts on invalid input for all input fields
- 2.23.0a Added popovers to all input variables on calculator.html

- 2.23.0b Fix bug preventing popover from closing on invalid input in calculator.html
- 2.23.0c Add basic structure to all popovers on calculator.html
- 2.23.0d Add closing function and decimal place check for all inputs on calculator.html
- 2.23.0e Fix popover showing when zeroes used in decimal places on valid inputs
- 2.23.0f Fix popover to show if input value exceeds max on calculator.html
- 2.23.1 Add popover for blank contact us forms
- 2.23.2 Add unique popovers for invalid responses on all fields in contact us forms
- 2.23.3 Add button disabling for invalid input on test\_yourself.html
- 2.23.4 Fix location of popovers to go above input for increased mobile user experience
- 2.23.4a Fix buttons that were not initially disabled on the test\_yourself page
- 2.23.4b Add disabled submit button on reset click on test\_yourself.html
- 2.23.4c Add invalid response text output for all test\_yourself invalid responses
- 2.23.4d Add scrolltop to calculator.html invalid inputs
- 2.24.0 Add user first view user stories to README.md
- 2.24.0a Edit and add data to README.md
- 2.24.0b Edit README.md to include wireframes and site structure
- 2.24.0c Edit README.md and check spelling
- 2.24.0d Edit README.md to include Features and Future Enhancements
- 2.24.0e Edit README to include languages, libraries and programs
- 2.24.0f Test difference for site speed after using tinyPNG
- 2.24.0g Edit README.md to include API information
- 2.24.0h Edit README.md to include data on refactoring



- 2.24.0i Edit README.md to include input validation code
- 2.24.0j Edit README.md to include known bugs
- 2.24.0k Fix broken links from the contents page on README.md
- 2.24.0m Edit README.md to allow spacing between links in the technologies section
- 2.24.0n Edit README.md with aligned text and correct bullet point locations
- 2.24.0p Edit README.md to correct non-indented code display
- 2.24.0q Fix text alignment in README.md
- 2.24.0r Fix grammar on help.html
- 2.24.0s Fix format for various text passages on README.md
- 2.24.0t Edit README.md to further enhance text and paragraphs throughout
- 2.24.0u Edit README.md to finalise text and bullet point placement
- 2.24.0v Fix broken links README.md
- 2.24.1 Add template for custom dialog box semi-styled on game.html Facebook share
- 2.24.2 Add custom alert boxes to game.html and contact.html
- 2.24.2a Add styles to custom dialog box
- 2.24.2b Fix mobile display for dialog box popup
- 2.24.2c Fix code display on README.md
- 2.24.3 Add instruction for Facebook app creation in README.md
- 2.24.4 Add instruction for EmailJS on README.md
- 2.24.5 Add testing outcome images to README.md
- 2.24.5a Edit README.md for corrections in image displays
- 2.24.6 Edit README.md to include images for forking and cloning the repo

2.24.6a      Edit image urls for cloning images on README.md

2.24.6b      Edit README.md for some contents links failing to trigger