

A Web Page

https://pauld0051.github.io/physics-code/calculator.html

Q

P

HomeCalculatorHelpGameTest YourselfContact

Velocity

Units

Yellow Light Phase

Interphase

Reaction Time

Units

Coeff. Friction

Intersection

Vehicle Length

Calculate

Reset

Share

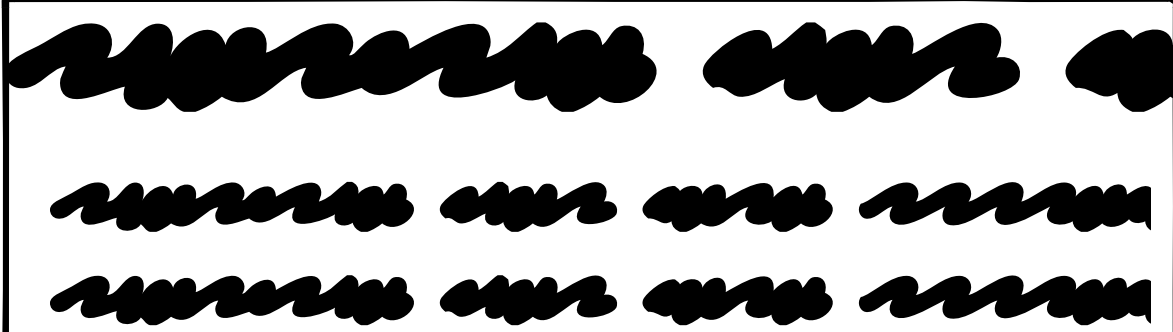
©

The site is designed based on a textbook-feel. Large icons with directive symbols, headings and user input fields are clear, separated and functional. The structure works on a similar theme to textbooks by having a title, a subtitle, and content area. The major difference which sets this apart from physical or online textbooks is the user ability to input their own data.

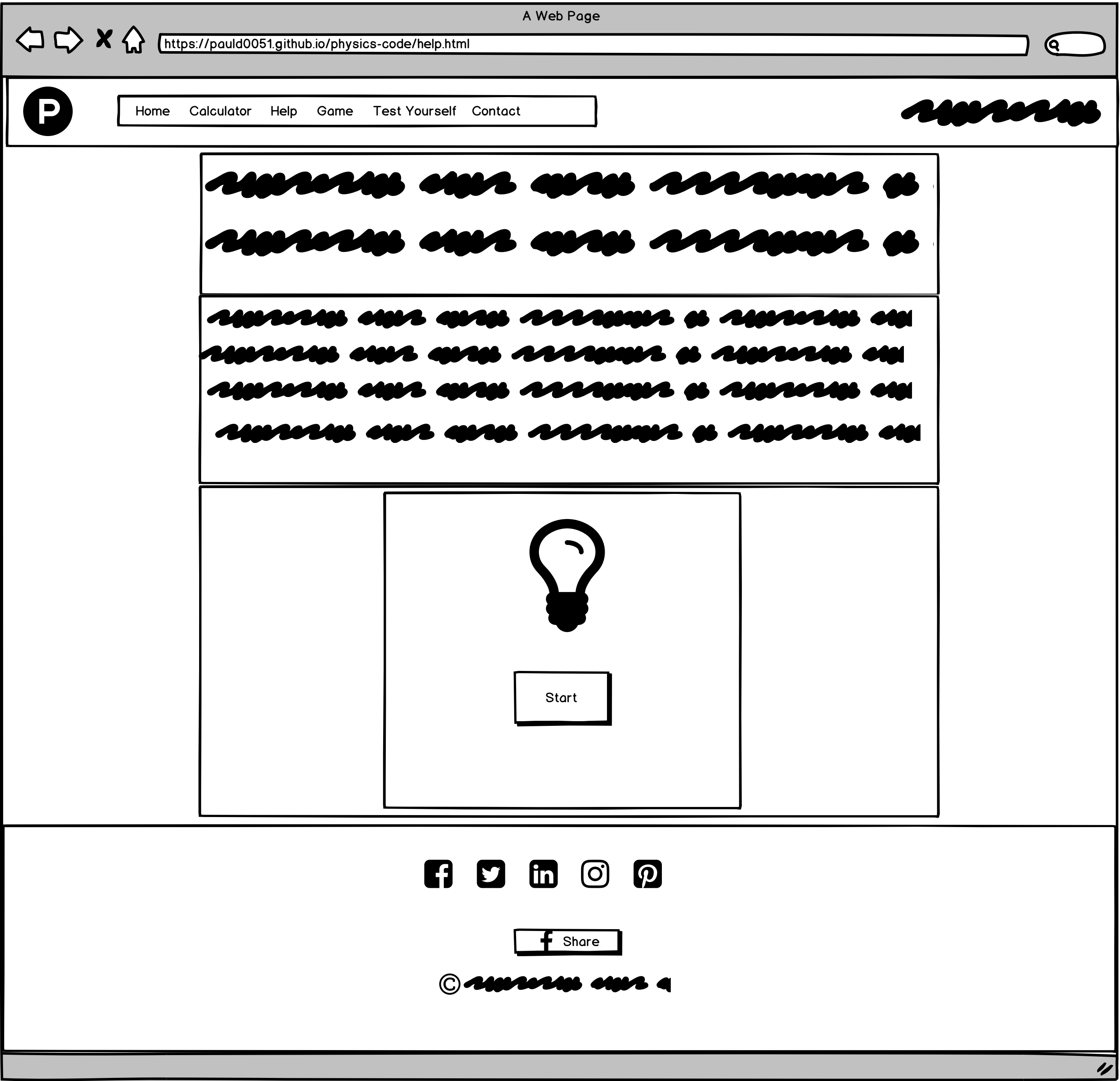
Calculations are completed in the background using JavaScript.

Colours of the site will be picked by colour palette with consultation for colour impaired users as well as colour sufficient users. It is anticipated shades of blue with complimentary crimson on white backgrounds will be used.

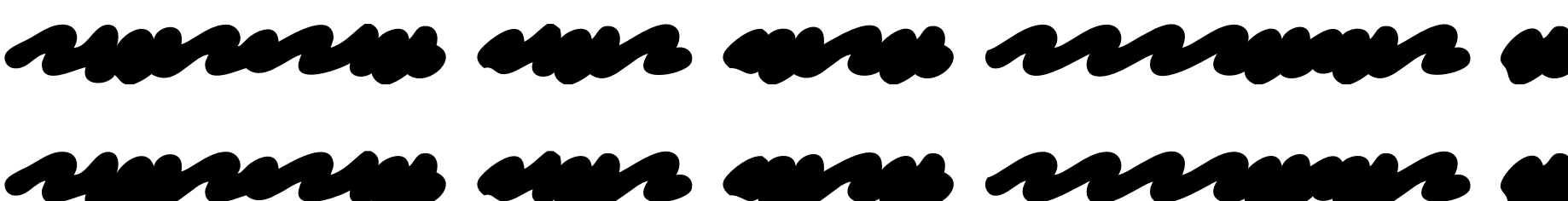
Help and tooltips will be added to each card and icons in the buttons.



Added later: Coefficient of friction table displaying frictions for various climatic and tire conditions. This will be included as a table in a pop-up modal.



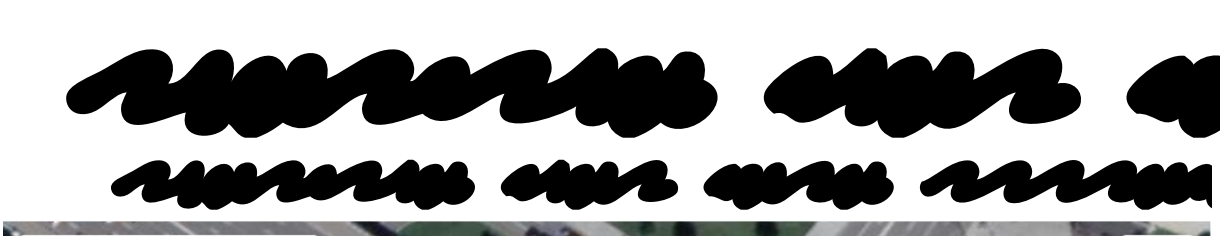
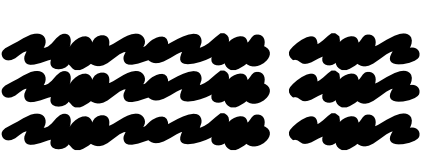
The game page is set up to display a bold heading, reason for the game and simple instructions. The game itself appears in a single panel and the user does not need to navigate to a new page for the game.



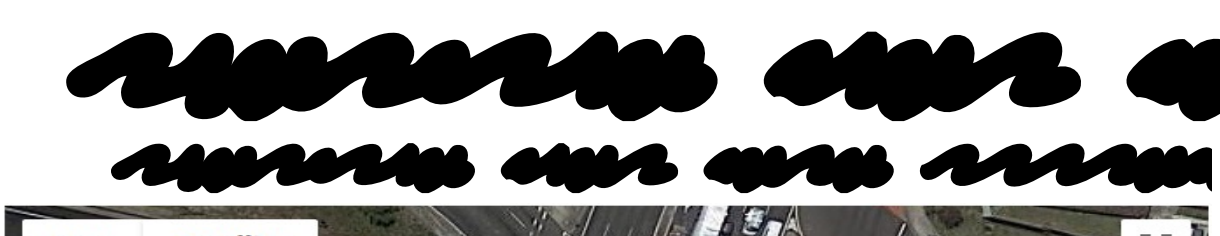
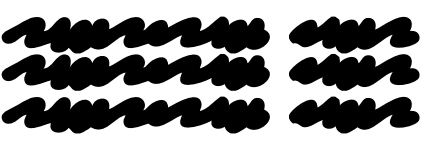
Android

Desktop

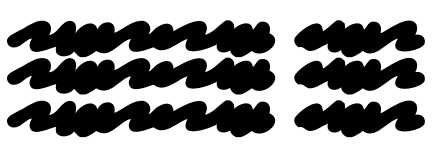
Apple



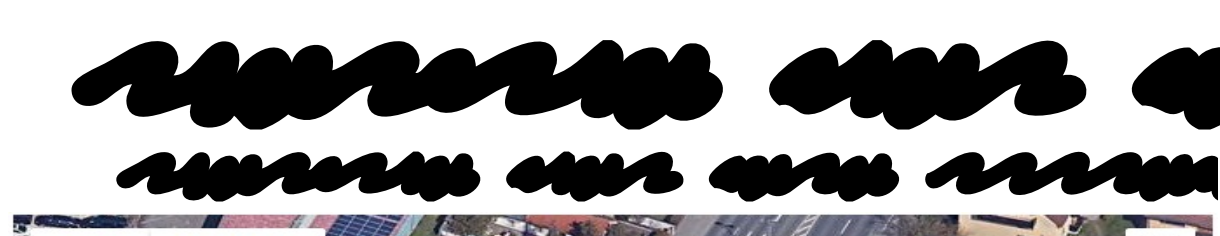
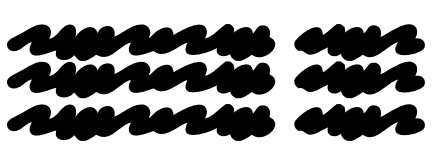
Scope



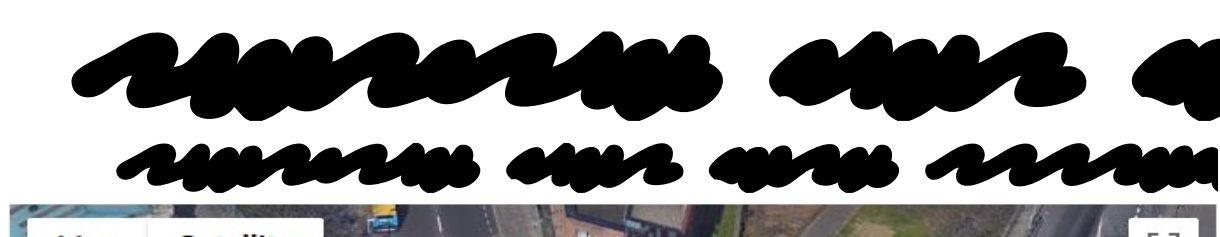
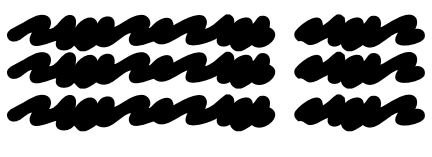
Scene



Scene



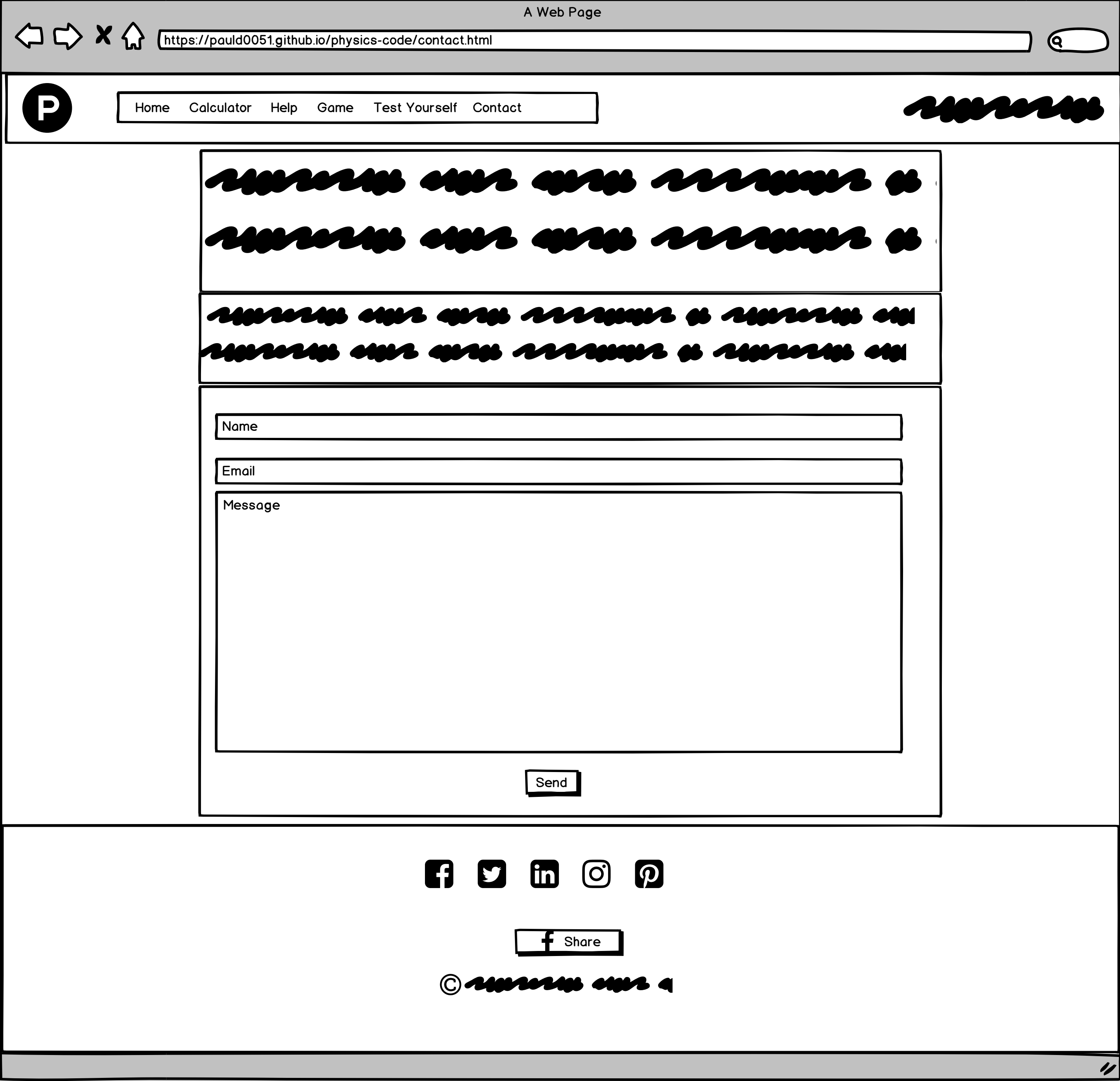
Scene



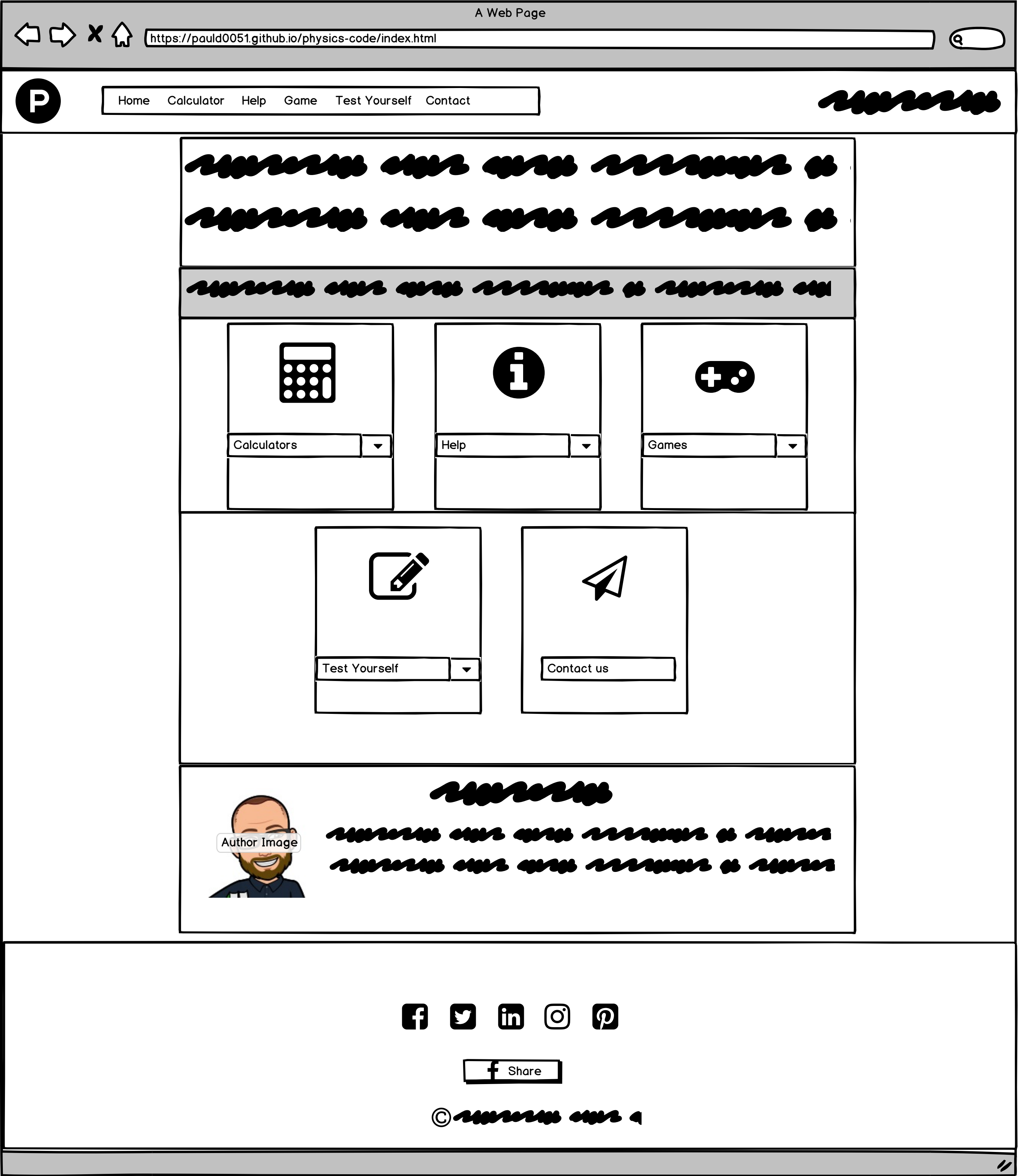
Scene



Shore



Users can contact the author via emailJS which will not require any backend or server requirements. Inputs are still controlled by both HTML and JavaScript and users will not be able to respond without a name and email address. The entire process is controlled externally but emails are recieved at the author's inbox.



The landing page will be based on an uncluttered principle that allows users to navigate from both the navbar at the top and cards presented with various links and dropdowns.



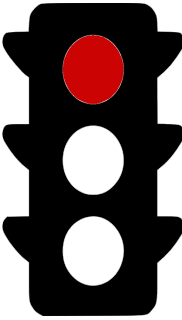
A small amount of identifying information on the site will be available in the top section and author information available near the footer.

Coefficient of Friction data presented on the help and test yourself pages
Table 1.

# ▲	Tire Conditions	Weather Conditions	μ
line 1			
line 2			
line 3			
line 4			
line 5			
line 6			


Discussion on the relevance of the table and its uses

Tooltips on all cards on the calculator page



Interphase

Tooltip with advice on use of the variable in the calculation

Type of zone...

Distance

Phase Distance

Stopping distance

Calculated number


Type of Zone


Conversion of velocity


Conversion of intersection size

Close

Reaction time game pop-up showing score and share facilities

Your reaction time is...



 Share

Reset

Modal pop-up displaying scenario data and user input

Initial velocity

Yellow light phase


Interphase

Reaction time

Tire conditions

Weather conditions

Length of vehicle



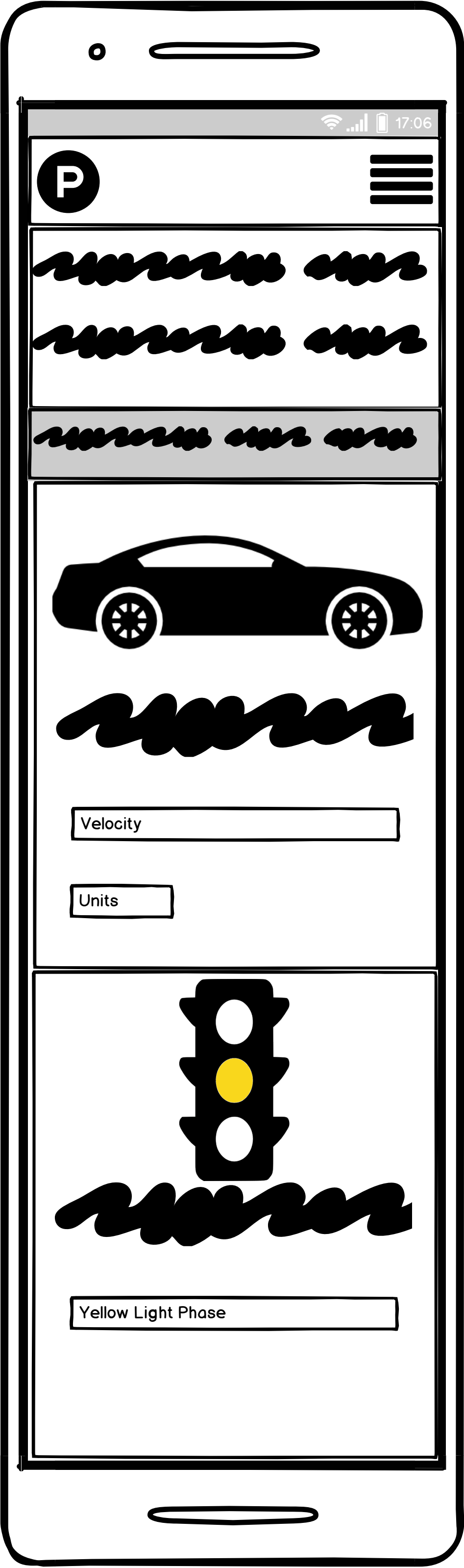
Calc:

Reset

Submit

Close

Tool-tips appear on all inputs when an invalid response is submitted as well as on the calculation page to give hints on variable input. Pop-ups are limited to only when a user activates them, there are no "surprise" pop-ups.



The mobile site is scrollable and delivers identical content as the desktop page with the same inputs available for all calculations, same maps for test yourself and identical help files. The major difference is the dropdown "burger" menu for navigation. Less white space will be noted on mobil versions, but a rule of thirds will still remain.



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The entire five maps will be available through scrolling in this wireframe the footer has been added at the bottom of the page for display purposes.