

Trek Controller User Manual
Mobile Navigation Control for
Planetary Web Portals
- Trek Controller -



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Setting Up

1. **What you need:** Have ready a smartphone and a computer. Trek Controller was designed with a large screen in mind, such as a hyperwall, but most users do not have this readily available and a laptop or desktop will suffice.
2. **Opening Mars Trek and Trek Controller:** Open a browser on your computer and enter in the URL bar, "TrekCon.me". **Note: Please avoid using Safari and Internet Explorer. Instead, use Firefox or Chrome.** The page should look like this:

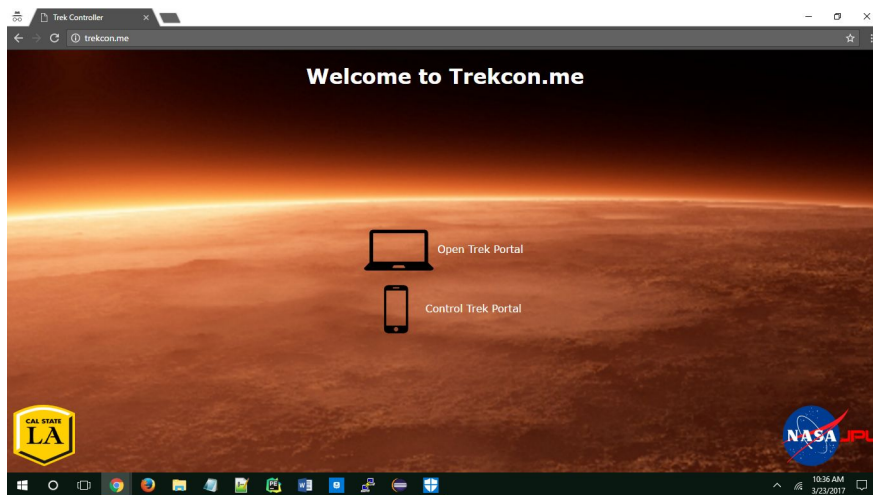


Figure 2-1

Select the first option of "Open Trek Portal". Both the icon and the text is clickable. After loading, the page should look like this:

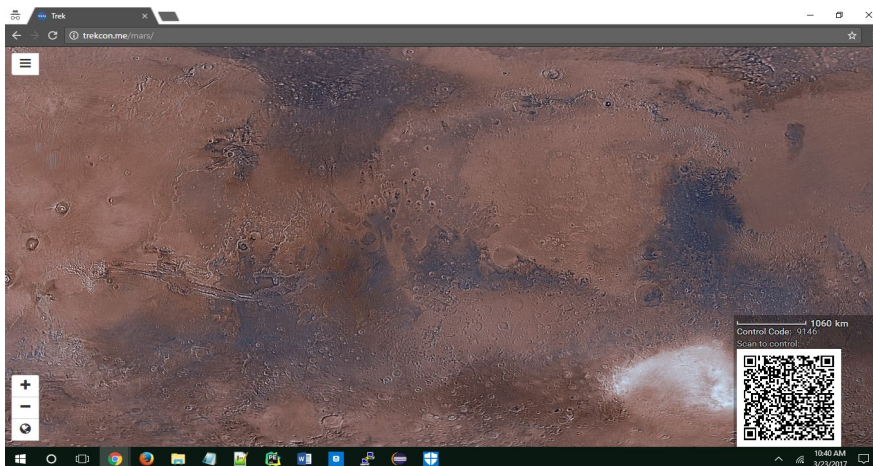


Figure 2-2



Figure 2b-2

Using Trek Controller

3. **Accessing the controller:** Touch 'Press to Control Me' on the Home page or, using the hamburger menu (Figure 3-1), press 'Controller'. Both will direct you to a verification page (Figure 3-2) asking for a 4-digit code.

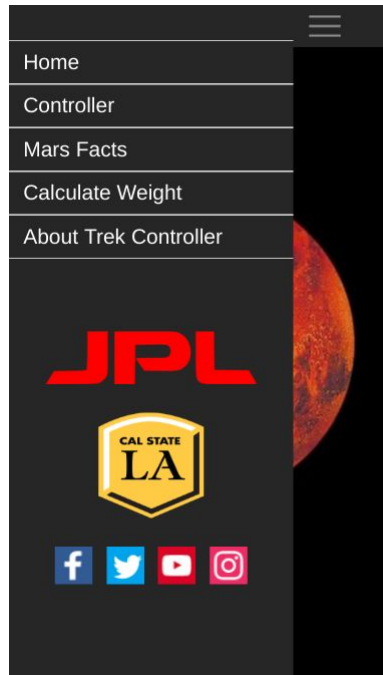


Figure 3-1

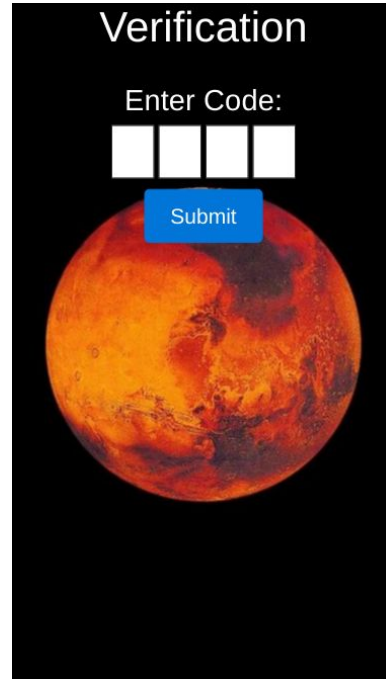


Figure 3-2

Enter the code seen on your computer's browser right above the QR-code. For reference, it is the red box in the lower right-hand corner of the figure below:

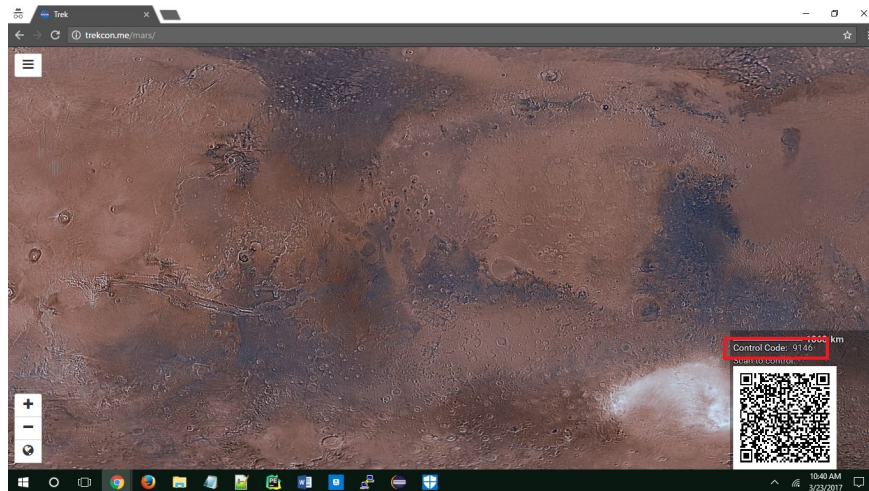


Figure 3-3

If there is no one in the queue, this will take you to the default controller which is Touch-Swipe Mode:



Figure 3-4

4. **Queue:** If there are persons waiting in the queue, you will see a screen informing you of how many. For instance, if there is one person in the queue, the page will look like this:

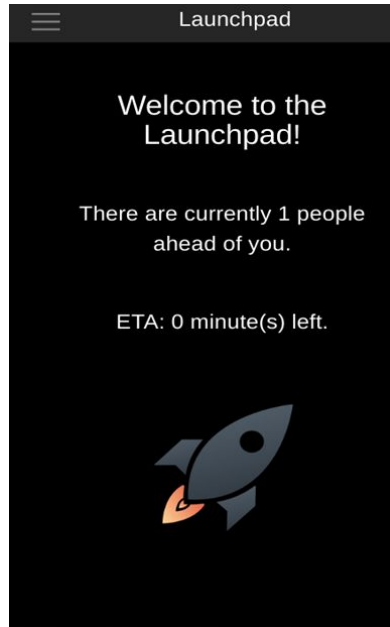


Figure 4-1

(**Note:** the 'ETA' is not actually implemented. It will not give you an accurate estimate of how long you will have to wait.) When it is your turn to control the Trek Portal instance, you will see this page for about two seconds before it redirects you to the Touch-Swipe Mode (*section B-5a*):

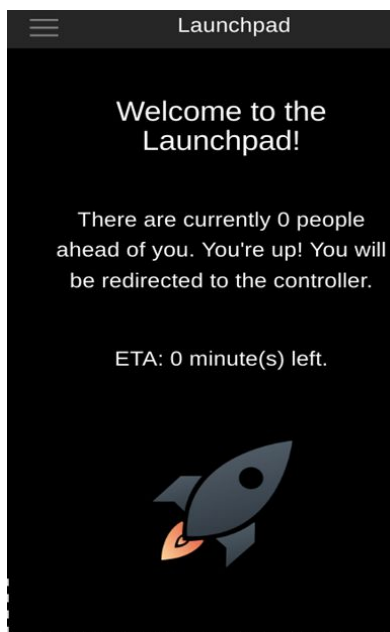



Figure 4-2

Note: Leaving this page will cause you to lose your position in the queue.

5. The Controller Modes:

- 5a. **Touch-Swipe Mode:** As seen in Figure 3-4, this is Touch-Swipe Mode. Swipe, pinch, or unpinch anywhere on the screen below the URL bar and above the menu bar along the bottom. 8-way movement (NSEW movements and all diagonals in between) and zoom in and out are supported. All movements are set to timeout after 2 seconds; no touch or motion is needed to stop the camera movement.

To switch to Joystick mode, press  at the bottom of the screen. (For a full explanation of all icons, go to *section C-7*.) There will be a prompt to turn your smartphone sideways so that it is in landscape. Make sure your smartphone's orientation is not locked.

- 5b. **Joystick Mode:** Joystick Mode has two joysticks; the left one controls the direction or xy-movements of the camera, and the right one controls the zoom or z-movements of the camera. The camera will move as long as a joystick is held off center, and camera movement will stop once a joystick is released. Both joysticks can be used simultaneously in 3D.

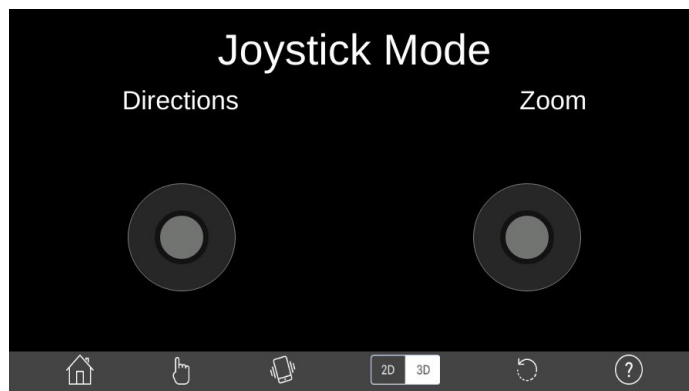




Figure 4-1

To use Motion Mode which allows you to control camera movements by tilting your phone, press  at the bottom of the screen. To go back to Touch-Swipe Mode, press .

- 5c. **Motion Mode** (iOS only): Motion Mode looks very similar to Joystick Mode - the only differences are that (1) the left directional joystick is grayed out and unresponsive and (2) the Motion Mode icon is bright green. To zoom in or out, use the right joystick.

Other

6. Pages:

- 6a. **Mars Fast Facts:** Multiple pages with various facts about Mars.
- 6b. **Weight On Mars:** Enter a weight in pounds, click 'Calculate', and it will output the equivalent weight on Mars.
- 6c. **About Trek Controller:** Basic information about the development of the app, including any outside libraries that were used.

7. Icons: Swipe Mode displays 5 icons on the menu bar; Joystick and Motion Modes display 6 icons.



Takes you to the Home page. If you are leaving a controller, a warning will pop up that you will have to re-enter the verification code or re-scan the QR code displayed on your computer's browser.



Takes you from Joystick/Motion Mode to Swipe Mode.



Takes you from Swipe to Joystick/Motion Mode.



Toggles Motion Mode on or off. The icon is green when it is on.



Toggles the view between 2D and 3D. The current mode is the highlighted one. In this picture, 2D is the current mode.



Will reset the view of Mars in whichever mode (i.e. 2D, 3D) is current.



(Not Yet Available) Instructions on how to use the controls for whichever controller page you are on.