short instruction guide

"Action Potential" simulator

(a)-(d) panel size (in pixels)

(a) Horizontal size of panels   (b) Vertical size of current panel   (c) Vertical size of upper panel

(g) Upper panel check box

(s) Gating value check box

(h) TEA and TTX selection checkboxes and action strength inputboxes

(j) Single or double stimulation select button Delay input box

(m) "Simulation" button

(q) "CLS" button

(n) Upper panel

(o) Gating values panel

(p) Stimulation current panel

(d) Vertical size of gating values panel

(i) "grid" function

(r) "test out" function

(f) Time selection radio button

(k) stimulation1 input boxes

(l) stimulation2 input boxes

(e) "temperature"
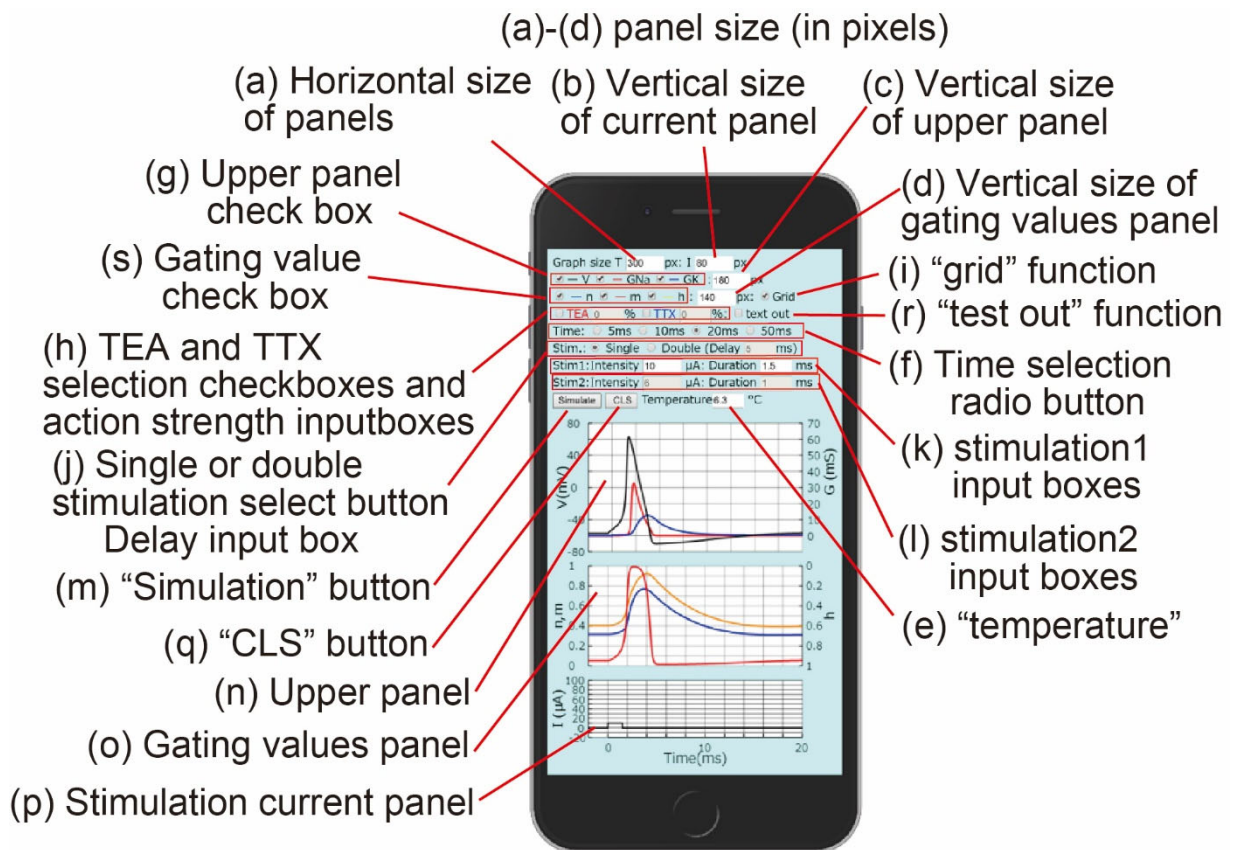
(1) Since different devices have different screen sizes, enter the size in pixels to get the appropriate panel size. Horizontal size of panels (a). Vertical size of current panel (b). Vertical size of upper panel (c). Vertical size of gating values panel (d).

(2) Enter the temperature (e)

(3) Select simulation time with radio buttons (f)

(4) In the upper panel (n), membrane potential (V), potassium conductance (G_K), and/or sodium conductance (G_{Na}) are displayed depending on which box(es) is /are checked (g). V is traced by a black line, G_{Na} conductance by a red line, and G_K by a blue line.

(5) In the Gating values panel (o), n, m, and/or h are traced depending on which box(es) is /are checked (s). n is traced by a red line, m by a blue line, and h by a yellow line. If all are not checked, that panel will not be displayed.

(6) If TEA or TTX is to be applied, check the box and enter the strength of the action in %. (h)

(7) If you want the panel to display a grid, check the "grid" function (i).

(8) Single or double stimulation can be selected with radio buttons. "Delay time" is required to be entered if "Double" stimulation is selected (j).

(9) Enter the stimulus current magnitude and pulse duration (k). If "Double" stimulation is selected, also enter (l).

(10)   Click the "simulation" button (m), traces are displayed in the upper panel (n), gating values panel (if checked) (o) and stimulation current panel (p).

(11)   To clear the panel traces, click the "CLS" button. (q)

(12)   If you check "text out" (r) and simulate, it will be displayed in CSV format text.