

## **User Manual for Pacekeeper**

This sonification program provides real time JSON files that simulate the different tts voices called during a run. With instances like inclination, uncontrolled pace, increased heart rate and breathing, the JSON files let the user simulate during an event stream.

- The actual UI features a BPM slider, which controls the set number of beeps heard continuously
- The HRV slider controls the gain for the beeps since variability is an intensity of heart rate
- Whenever breathing exceeds the unhealthy amount of 35 breaths per min, a audio cue resembling an inhale/exhale motion is sonified
- Every time pace is not between 8 and 9 miles per min, a tts voice lets the user know to speed up/slow down
- Clicking inclination and declination buttons also let the user know with tts voice that a change in elevation occurred

Unfortunately for brpm and pace sliders, the sounds emitted caused a delay when controlling the sliders. Usually clicking and dragging to sliders will allow for the user to control these metrics but will visually lag.