The Burning-Man Synchronized Tempra-Chronometer (TC) is an alternate decorative item, thermometer, and time keeping device designed specifically for Burning-Man. Although the specifics of the device are still being developed, the device will be mounted on an armband and have 20 color-changing LEDs. The usage of the lights are as follows:

- 7 lights to serve as a “progress bar” on the Burning-Man event. One additional light will be lit each day.
- 7 lights to display the temperature in binary. Seven binary digits is enough to display temperatures between $0^\circ - 127^\circ$.
- 4 lights to display the number of hours until the next solar event, either sunrise or sunset.
- 2 lights to display the quarter-hour in binary.

In addition, the Tempra-Chronometer will be water-resistant and designed to use a minimal amount of power. The TC will use an internal counter to keep time, and must be turned on at the start of Burning-Man to remain in sync. A separate power supply will be used for the lights and the micro-controller. This way, the microcontroller can be supplied for the entire week on a minimally small battery. If a device should need to be turned on in the middle of the festival (such as if the battery became dislodged, a custom binary will be required. Though we have plans to expedite this process, at the moment we do not have plans to implement a more convenient way for the device to be restarted. This is primarily due to the limited amount of time until Burning-Man this year.

The configuration of the lights and specific hardware to be used have not yet been decided. This document is meant to illustrate the overall design-goals for the project.