User

sta
thr

```
                         ┌──────────────────┐                              ┌──────────────────┐
                         │  HeartWave Device │                              │      Screen      │
                         └──────────────────┘                              └──────────────────┘
                                  │                                                 │
turn_on(): User Opens HeartWave Device     display_main_menu(): HeartWave Device    │
─────────────────────────────────▶█        initializes and displays the main menu on█
                                  █                    the Screen.                   █
                                  █ ─────────────────────────────────────────────▶ █
         Screen outputs to user   █                                                 █
─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘                                                 █
                                                                                    █
                                                                ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘

art_session():  User navigates
rough the menu and starts a
         new session.                          start_data_collection():HeartWave
─────────────────────────────────▶█            the Sensor to begin collecting h
                                  █
                                  █ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─
                                  █
                                  █
                                  █
                                  █
                                  █
                                  █
                                  █
                                  █
                                  █ ◀─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─
                                  █
                                  █
                                  █
                                  █ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─
                                  █
                                  █
                                  █     update_session_data(session_data):HeartWave
                                  █     Device updates the Screen with session data,
                                  █    including the HRV graph, coherence score, and
                                  █                    other metrics.               █
                                  █ ─────────────────────────────────────────────▶ █
                                  █                                                 █
                                  █                                                 █
```

Sensor
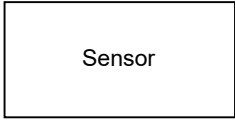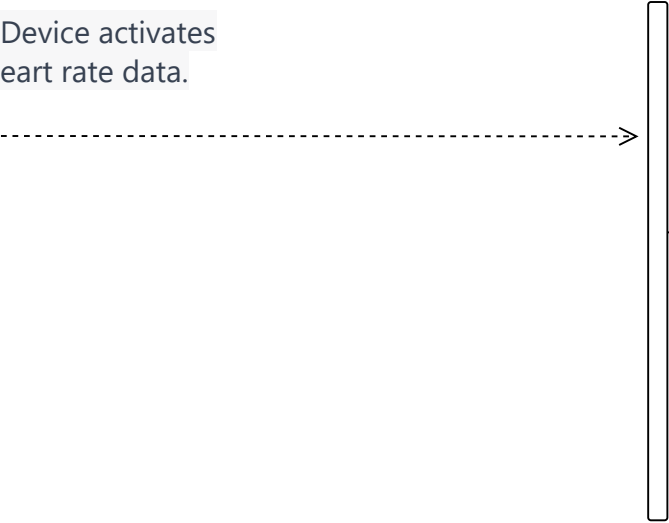
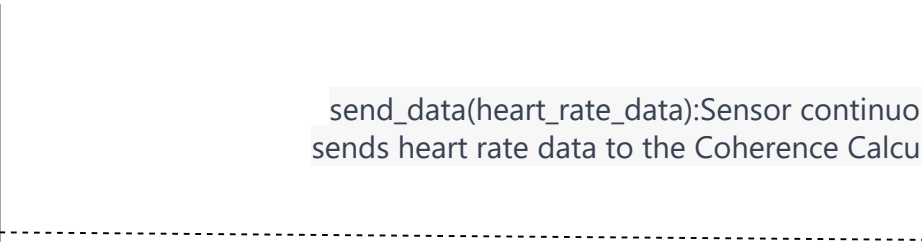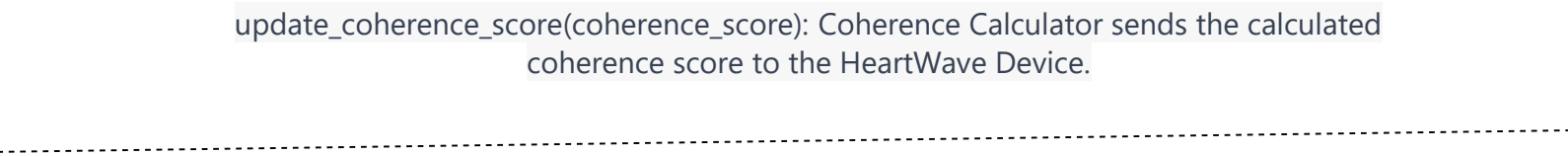Device activates
eart rate data.

send_data(heart_rate_data):Sensor continuo
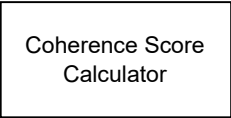sends heart rate data to the Coherence Calcu

update_coherence_score(coherence_score): Coherence Calculator sends the calculated
coherence score to the HeartWave Device.

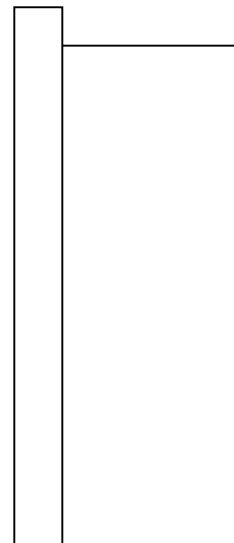set_color(coherence_level):HeartWave Device up
sc

Coherence Score
Calculator

calculate_coherence(heart_rate_data):Coherence
Calculator processes the heart rate data and
computes the coherence score.

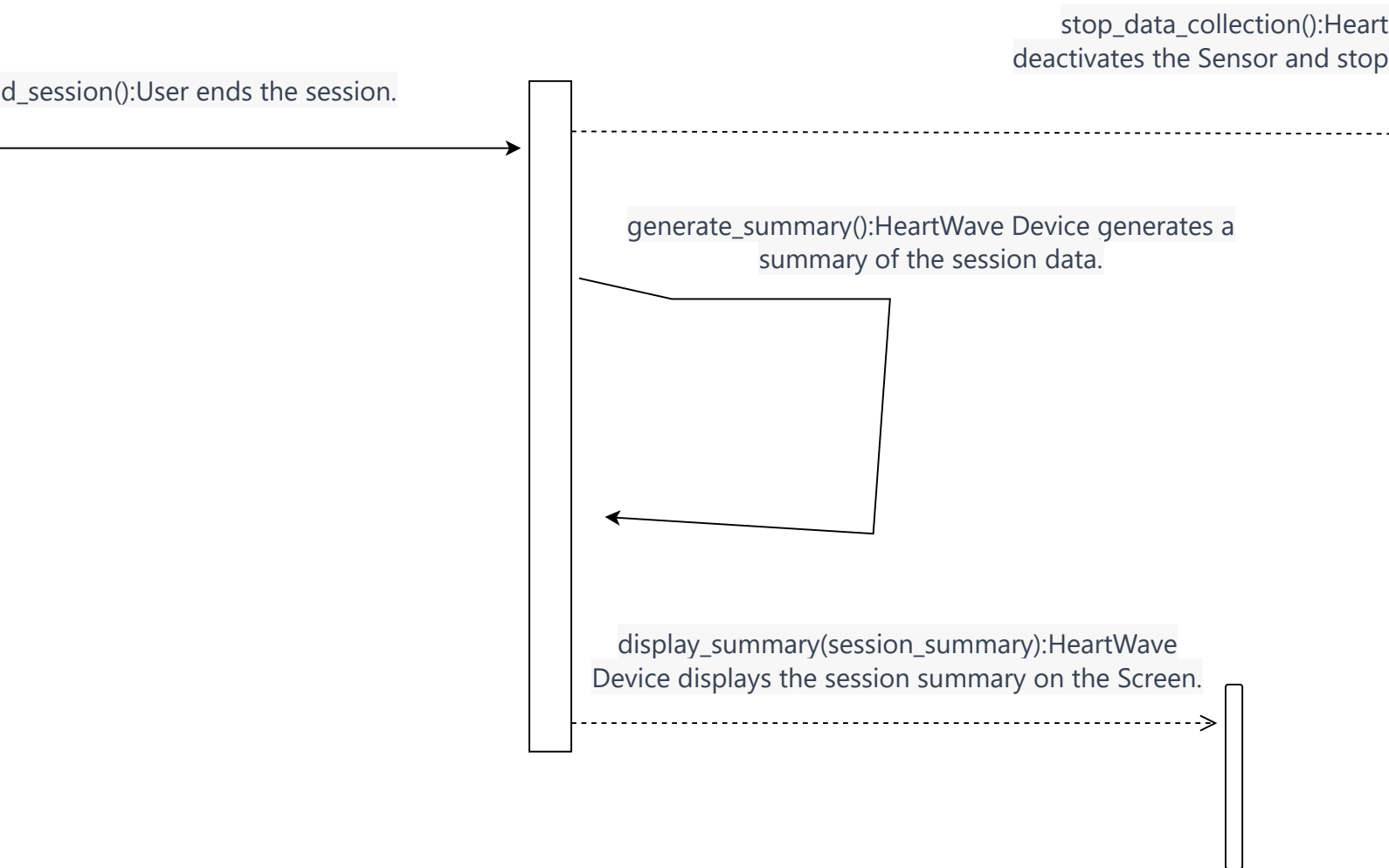odates the LED Light color based on the coherence
core.

LED LIGHT

en

stop_data_collection():Heart
deactivates the Sensor and stop

d_session():User ends the session.

generate_summary():HeartWave Device generates a
summary of the session data.

display_summary(session_summary):HeartWave
Device displays the session summary on the Screen.

Wave Device
s collecting data.