## Additional Features

### Body Measurement



Figure Body measurement diagram

#### Track My Health: Body Measurement

When the user selects the Body Measurement feature icon, they will be directed to the Body Measurement page. On the Body Measurements page, the system will display a Graph and a Table button so that the user can view their information in graph, or table, format.

Under the Graph button, there will be a body measurement table with several body measurement categories;

**GRAPHIC**

such as body mass index (BMI), waist-to-hip ratio (WHR), basal metabolic rate (BMR), body fat percentage (bf%), ideal weight, and metabolic age. Please refer to the formula document for more detail on any parameters, or measures, listed in this section.

+ It is important to note that body mass index measures body fat, based on height and weight, for males and females.

+ Waist-to-hip ratio measures the circumference of the one's waist to their hips.

+ Also, basal metabolic rate is the amount of energy (i.e. calories) expended by someone at rest.

+ Body fat percentage is a measure of the total mass of one's fat divided by their total body mass.

+ Finally, ideal weight suggests what a person of a given height and body frame should weigh;

+ while metabolic age refers to a number that is calculated by comparing your basal metabolic rate to the basal metabolic rate average of your chronological age group.

On the Body Measurement graph, if there is no information to display, then a notification will state "You have no data to graph."

**MÀU SẮC CỦA GRAPH**

Also, the graph's fields will be **color** coded to represent different health levels for body measurement. *For instance (ví dụ), green is healthy, yellow is under/overweight, and orange is obese.*

Under the Body Measurement graph, there will be a date/time section that the user can select. If the user selects the date/time section, then a pop-up calendar will display for the user to select a start and end date/time.

**TABLE**

Aside from a graph, the user can also choose to have their data displayed in table format. With the table format, the user will see various body measurement categories; such as

CÁC THÀNH PHẦN:

body mass index (BMI), waist-to-hip ratio (WHR), basal metabolic rate (BMR), body fat percentage (BF%), lean body weight (LBW), percent muscle (%muscle), ideal weight (IW), metabolic age, activity level, and calorie needs. In order to add to previous definitions, please note that lean body weight refers to subtracting one's body fat weight from their total bodyweight.

Also, percent muscle is a measure that defines how much of a person's total mass is muscle mass. Activity Level is a function of the one's total energy expended in a day, divided by their Basal Metabolic Rate. Finally, Calorie Needs refers to the calories that one needs to maintain a healthy weight. This is calculated by accounting for one's height, weight, age, and activity level.

On the Body Measurement table, the user will also see two sets of Value and Diagnosis columns. In these columns, the system will display the values and diagnosis for each category of body measurement.

Furthermore, there will be a section for Date/Time; which the user can click on and a pop-up calendar will display. The user can then select a start and end date/time. If there is no data available, then a notification will state "There is no data to display."

Below the graph/table section, the system will display **a Diagnosis and Recommendations** field. Initially, the Diagnosis and Recommendations section will have a notification that reads "This page displays your current medical issues and the date that they were noted in your medical record. Click on the issue name for more in-depth information on that particular issue." By following the notification directions, the user will be able to retrieve details about their current diagnosis and previous diagnoses. It will also detail recommendations based on the diagnoses provided.

**NÚT CUỐI TRANG**

Beneath Diagnosis and Recommendations, there will be a **Settings** button and a **Back to Track My Health** button. If the user selects the Settings button, they will be directed to the Body Measurement Settings page. However, if the user selects the Back to Track My Health button, then they will be transferred to the Track My Health home page.

#### Track My Health: Body Measurement - Settings

On the Body Measurement Settings page, the system will display a notification, under the Body Measurement Settings sub-header, that states "This page displays the current settings of this feature."

Below the notification, the user will have the ability to

+ change Ideal Weight (IW) method to formula or medical. The user can also

+ change Body Fat Percentage calculation method to Deurenberg, CUN-BAE, or U.S. Navy. The user can also

+ change Body Fat Percentage evaluation method to WHO, Tanita, or Brainy. Furthermore, the user has the option to

+ Basal Metabolic Rate: select Katch-McArdle, or Muffin, as the method to measure their.

+ change the Activity Factor based on their activity level. The user will make these changes by selecting a particular method via a **drop-down** list.

Under the body measurement methods section, the system will display separate fields for **Weight, Height, Waist, Hip, and Neck**.

The user will need to accurately **enter** **their information** for these fields so that the Body Measurement feature can track and function appropriately.

Below this information, the user will see **Edit, Cancel, Save, and Back buttons.**

If the user chooses to

+ edit their settings, they will need to select the **Edit** button and make the desired changes.

+ Once the changes are made, the user will select the **Save** button so that the desired settings are saved.

+ However, if the user wants to cancel any changes, then they will select the **Cancel** button and no changes will be saved.

+ The user can also choose to select the **Back button**. This will take them **back to the Body Measurement page**.

### Heart Rate Monitoring



Figure Heart rate monitoring diagram

#### Track My Health: Heart Rate

From the Track My Health page, the user can select the **Heart Rate icon**. Upon selecting the Heart Rate icon, the user will be directed to the Heart Rate page.

On the Heart Rate page, the system will display a Graph button and a Table button, below the Track My Health and Heart Rate sub-headers.

**GRAPH REPORT**

If the user selects the Graph button, they can opt to view their **Heart rate data**, or **HRV data**, via a **drop-down button** above the graph.

With the **Heart rate** data:

the user will see a heart rate graph with an x-axis and a y-axis.

+ The **x-axis** will reflect the **date/time** of the data recordings,

+ while the **y-axis** will show the **heart rate beats per minute**.

Within the Heart rate data graph, the user will see **high threshold marker** for heart beats recorded.

The user will also see **a low threshold marker** for the heart beats recorded.

The **high threshold** marker will be indicated by **red hashed lines**,

while the low threshold marker will be represented by **blue hashed lines.**

If there is no data to display within the graph, the system will show a notification that states "You have no data to graph."

However, **if there is data to graph**, then the user will see a **solid light blue line** that represents the **user's raw heart rate** **voltage readings over time.**

Below the heart rate voltage data, the system will display the user's **heart rate data over time**; **which is indicated a light red line.**

Finally, under the heart rate data, the **user's resting heart rate data** will be represented by **orange dots**.

***Please refer to the formula document for any measures, parameters, detailed in this section.***

With the graph format, the user can also choose to view their HRV data by using the drop-down field above the graph.

On the **HRV data graph**,

there is also a x-axis and a y-axis. For the

+ x-axis, the date/time of the data recordings will be displayed. For the

+ y-axis, there will be several HRV parameters displayed; specifically, **Mean HR, Std. HR, Mean RR, SDNN, RMSSD, and pNN50**.

In the HRV data graph, each of these parameters will be represented by **green bars** displayed over time.

DATE/TIME

Below the graph, there will be a date/time field that the user can click on. When the user clicks on the date/time field, a pop-up will display for the user to select the desired start and end date/time.

**TABLE REPORT**

Aside from a graph, the user can select the Table format. As with the graph, the

user can **choose to view the Heart rate data, or HRV data**, via the drop-down field above the graph/table.

With the **Heart rate data table** format,

the system will display several columns to represent: Date/Time, heart rate (HR), Resting heart rate (Resting HR), Voltage, and Diagnosis (Diag.).

Under each table header (i.e. Date/Time, HR, etc.), there will be several entry fields to reflect the data collected over time for each category.

For the Date/Time field, the user can select Date/Time and a pop-up calendar will display for the user to select the desired start and end date/time.

If the user selects the **HRV data table**,

via the drop-down above the graph/table, the user will see columns that represent Date/Time, Mean HR, Std. HR, Mean RR, SDNN, RMSSD, pNN50, and Diagnosis (Diag).

Under each table header (i.e. Date/Time, Mean HR, etc.), there will be several entry fields to reflect the data collected over time for each category.

For the Date/Time field, the user can select Date/Time and a pop-up calendar will display for the user to select the desired start and end date/time.

**RECOMMENDATIONS**

Below the graph/table section, the system will display a Diagnosis and Recommendations field.

Initially, the Diagnosis and Recommendations section will have a notification that reads "This page displays your current medical issues and the date that they were noted in your medical record.

**Click on the issue name** for more in-depth information on that particular issue."

By following the notification directions, the user will be able to **retrieve details** about their current diagnosis and previous diagnoses.

It will also detail recommendations based on the diagnoses provided.

SETTINGS

Beneath Diagnosis and Recommendations, there will be a Settings button and a Back to Track My Health button.

+ If the user selects the Settings button, they will be directed to the Body Measurement Settings page.

+ However, if the user selects the Back to Track My Health button, then they will be transferred to the Track My Health home page.

#### Track My Health: Heart Rate - Settings

On the Heart Rate Settings page, the system will display a notification, under the Heart Rate Settings sub-header, that states "This page displays the current settings of this feature."

Below the notification, the user will see settings categories that the user can change; such as **Sample rate, Maximum heart rate estimation (Max HR estimation), High Resting heart rate threshold (High Resting HR threshold), Low Resting heart rate threshold (Low Resting HR threshold), and heart rate variability analysis interval (HRV analysis interval).**

***Please refer to the formula document for further details on any parameters, or measures, listed in this section.***

For each category, the user can choose the desired settings.

For example,

+ the user can select a **five minute interval for Sample rate**.

+ The user can also select **Kolata, or Gatti,** for **Max HR estimation**.

+ Furthermore, **High and low Resting HR** **threshold** can be set for **one hundred, or fifty**, beats per minute, respectively. Finally,

+ HRV analysis can be set for an interval of **five minutes, or more,** if the user desires.

Each category will have different settings that the user can select from to effectively measure their heart rate.

Below the Heart Rate settings, the user will see **Edit, Cancel, Save, and Back buttons**.

+ If the user chooses to edit their settings, they will need to select the Edit button and make the desired changes.

+ Once the changes are made, the user will select the Save button so that the desired settings are saved.

+ However, if the user wants to cancel any changes, then they will select the Cancel button and no changes will be saved.

+ The user can also choose to select the Back button. This will take them back to the Heart Rate page.

### Oxygen Monitoring



Figure Oxygen Monitoring diagram

#### Track My Health: Oximeter

On the Track My Health home page, the user can select the Oximeter feature icon. This will direct them to the Oximeter page. On the Oximeter page, the system will display a Graph button and a Table button, below the Oximeter sub-header.If the user selects the Graph button, then they will be able to see an oximeter graph with an x-axis and a y-axis.

The x-axis will reflect the date/time parameters of the data recordings, while the y-axis will show the blood oxygen saturation percentage (i.e. %SpO2). Please refer to the formula document for further details on any parameters, or measures, listed in this section. Within the graph, the system will display a black line that represents the user's blood oxygen saturation percentage over time. If there is no data to display, then there will be a notification that states "You have no data to graph."

Below the black line, the user will see a blue hashed line; which represents a low threshold for the user's blood oxygen saturation percentage. Under the graph, the user can select the Date/Time section to display a pop-up calendar. This will allow the user to select a desired start and end date/time.

Aside from a graph, the user can select the Table format. With the table format, the system will display several columns to represent Date/Time, blood oxygen saturation percentage (%SpO2), Threshold, Mode, and Diagnosis (Diag.). Under each table header (i.e. Date/Time, %SpO2, etc.), there will be several entry fields to reflect the data collected over time for each category. For the Date/Time field, the user can select Date/Time and a pop-up calendar will display for the user to select the desired start and end date/time.

Below the graph/table section, the system will display a Diagnosis and Recommendations field. Initially, the Diagnosis and Recommendations section will have a notification that reads "This page displays your current medical issues and the date that they were noted in your medical record. Click on the issue name for more in-depth information on that particular issue." By following the notification directions, the user will be able to retrieve details about their current diagnosis and previous diagnoses. It will also detail recommendations based on the diagnoses provided.

Beneath Diagnosis and Recommendations, there will be a Settings button and a Back to Track My Health button. If the user selects the Settings button, they will be directed to the OximeterSettings page. However, if the user selects the Back to Track My Health button, then they will be transferred to the Track My Health home page.

#### Track My Health: Oximeter - Settings

On the Oximeter Settings page, the system will display a notification, under the Oximeter Settings sub-header, that states "This page displays the current settings of this feature." Below the notification, the user will see settings categories that the user can change; such as Sample rate, Tracking mode, Warning threshold, and Measurement duration. Please refer to the formula document for further details on any parameters, or measures, listed in this section.

For each category, the user can choose the desired settings. For example, the user can select a five minute interval for Sample rate. The user can also select the appropriate Tracking mode, Warning threshold, and Measurement duration. Each category will have different settings that the user can select from to effectively track their Oximeter data.

Below the Oximeter settings, the user will see Edit, Cancel, Save, and Back buttons. If the user chooses to edit their settings, they will need to select the Edit button and make the desired changes. Once the changes are made, the user will select the Save button so that the desired settings are saved. However, if the user wants to cancel any changes, then they will select the Cancel button and no changes will be saved. The user can also select the Back button. This will take them back to the Oximeter page.

### Fitness Monitoring



Figure Fitness Monitoring diagram

#### Track My Health - Fitness

From the Track My Health home page, the user can select the Fitness feature icon. Once the Fitness feature icon is selected, the user will be directed to the Fitness page. On the Fitness page, the user will see a Graph button and a Table button; below the Track My Health and Fitness sub-headers.

If the user selects the Graph button, the user will see a Fitness graph with an x-axis and a y-axis. The x-axis will reflect the date/time of the data recordings, while the y-axis will show several variables; such as Step counts, Distance, Average speed, Calories burned, and Pedometer duration. Please refer to the formula document for further details on any parameters, or measures, listed in this section.

The user will be able to select the desired y-axis variable via a drop down box above the Fitness graph. Above the graph, the system will display a notification stating "Select parameter to draw." A drop down box, with the y-axis variables, will be positioned to the right of the notification.

Within the graph, the user will see clustered bars that reflect the data over time (Clustered Bar Graph). However, if there is no data to display, then there will be a notification that states "You have no data to graph." Nonetheless, if there is data to display, then each piece of data will be represented by a color. For example, the bar on the left will be orange, and will represent Step counts.

On the other hand, the bar on the right will be green, and will represent the target for each y-axis variable selected. This will be reflected in the legend to the right of the graph, which details the variables and corresponding colors. Below the graph, the user can select the Date/Time section to display a pop-up calendar. This will allow the user to select a desired start and end date/time.

Aside from a graph, the user can select the Table format. Below the Table button, the user can select the Heart Rate exercise table link (HR exercise table), or the Pedometer table link. On the HR exercise table, the system will display several columns to represent Date/Time, Duration, Exercise, Time in zones, Target HR, Average HR, and Maximum HR.

For the Pedometer table, system will display several columns to represent Date/Time, Target, Steps, Distance, Average Speed, Calories burned, and Duration. Under each table header (i.e. Date/Time, Duration, etc.), there will be several entry fields to reflect the data collected over time for each category. For the Date/Time field, the user can select Date/Time and a pop-up calendar will display for the user to select the desired start and end date/time.



There is a second table which reports the daily pedometer data. This table will display similar fields as the first Pedometer table.

Below the graph/table section, the system will display a Diagnosis and Recommendations field. Initially, the Diagnosis and Recommendations section will have a notification that reads "This page displays your current medical issues and the date that they were noted in your medical record. Click on the issue name for more in-depth information on that particular issue." By following the notification directions, the user will be able to retrieve details about their current diagnosis and previous diagnoses. It will also detail recommendations based on the diagnoses provided.

Beneath Diagnosis and Recommendations, there will be a Settings button and a Back to Track My Health button. If the user selects the Settings button, they will be directed to the Fitness Settings page. However, if the user selects the Back to Track My Health button, then they will be transferred to the Track My Health home page.

#### Track My Health: Fitness - Settings

On the Fitness Settings page, the system will display a notification, under the Fitness Settings sub-header, that states "This page displays the current settings of this feature." Below the notification, the user will see two sets of settings categories that the user can change. The first set of settings pertains to Heart rate exercise. Under Heart rate exercise, the user can modify the Exercise mode, Target HR method, and the Custom exercise programs. Please refer to the formula document for further details on any parameters, or measures, listed in this section.

With the Exercise mode setting, the user can select single or multi-stage. For the Target HR method, the user can select General or Zoladz. Under the Custom exercise programs setting, the user will be able to pull up an exercise program table. Above the table, there will be a box that details the number of stages. To the right of the box, there will be a Save button for the user to save any changes.

Within the table, there will be three headers listed from left to right; namely, Stage, Target HR, and Time. Under Stage, the system will display fields for Warm up, Fat burn, and Recovery. Below Target HR, the user will see boxes for Zone 1 or Zone 2. Finally, beneath Time, the system will display boxes with time intervals; for example, 5, 10, or 20 minutes.

Under the table, the user will see a split box that details "Transition Audio:" on the left and "file" on the right. Below that box, there will be another split box that details "Program name:" on the left and "Daily" on the right. The boxes on the right side can be categorized/labeled as the user desires.

Beneath the Heart rate exercise settings, there are the Pedometer settings; such as Target setting, Remind setting, and Calories burned method. For each category, the user can choose the desired settings. Each category will have different settings that the user can select from to effectively track their Pedometer data.

Below the Fitness settings, the user will see Edit, Cancel, Save, and Back buttons. If the user chooses to edit their settings, they will need to select the Edit button and make the desired changes. Once the changes are made, the user will select the Save button so that the desired settings are saved. However, if the user wants to cancel any changes, then they will select the Cancel button and no changes will be saved. The user can also select the Back button. This will take them back to the Fitness page.

### Stress Monitoring



Figure Stress Monitoring diagram

#### Track My Health: Stress Monitoring

On the Track My Health home page, the user can select the Stress Monitoring feature icon. This will direct them to the Stress Monitoring page. On the Stress Monitoring page, the system will display a Graph button and a Table button, below the Stress Monitoring sub-header. If the user selects the Graph button, then they will be able to see a Stress Monitoring graph with an x-axis and a y-axis.

The x-axis will reflect the date/time parameters of the data recordings, while the y-axis will show the stress percentage (% Stress). Please refer to the formula document for further details on any parameters, or measures, listed in this section. Within the graph, the system will display bars (Bar graph) that represent the user's stress percentage over time.

However, if there is no data to display, then there will be a notification that states "You have no data to graph." To the right of the Bar graph, the user will see a Raw data button. If the user selects this, then they can view the graph information in raw data format. With the raw data format, the system will display several parameters on the y-axis; such as HR, HR voltage, GSR, and g-values (i.e. X, Y, and Z variables).

Each of these parameters will be represented a light red line, yellow line, black line, green line, red line, and a blue line, respectively. These lines will represent each parameter's data over time. Under the graph, the user can select the Date/Time section to display a pop-up calendar. This will allow the user to select a desired start and end date/time.

Aside from a graph, the user can select the Table format. With the table format, the system will display several columns to represent Date/Time, Stress level, and Diagnostics. Under each table header (i.e. Date/Time, Stress level, etc.), there will be several entry fields to reflect the data collected over time for each category.

As with the graph, the user can also view the table in Raw data format. By selecting the Raw data button, the user will see a raw data table that has columns to represent Date/Time, HR, HR voltage, GSR, g-values (i.e. X, Y, and Z), and Diagnosis (Diagn). Under each table header (i.e. Date/Time, HR, etc.), there will be several entry fields to reflect the data collected over time for each category. For the Date/Time field, the user can select Date/Time and a pop-up calendar will display for the user to select the desired start and end date/time.

Below the graph/table section, the system will display a Diagnosis and Recommendations field. Initially, the Diagnosis and Recommendations section will have a notification that reads "This page displays your current medical issues and the date that they were noted in your medical record. Click on the issue name for more in-depth information on that particular issue." By following the notification directions, the user will be able to retrieve details about their current diagnosis and previous diagnoses. It will also detail recommendations based on the diagnoses provided.

Beneath Diagnosis and Recommendations, there will be a Settings button and a Back to Track My Health button. If the user selects the Settings button, they will be directed to the Stress Monitoring Settings page. However, if the user selects the Back to Track My Health button, then they will be transferred to the Track My Health home page.

#### Track My Health: Stress Monitoring - Settings

On the Stress Monitoring Settings page, the system will display a notification, under the Stress Monitoring Settings sub-header, that states "This page displays the current settings of this feature." Below the notification, the user will see settings categories that the user can change; such as Measurement duration, Heart rate sample rate, GSR sample rate, and Accelerometer sample rate. Please refer to the formula document for further details on any parameters, or measures, listed in this section.

For each category, the user can choose the desired settings. For example, the user can select a two minute interval for Measurement duration. The user can also select the appropriate Heart rate sample rate, GSR sample rate, and Accelerometer sample rate. Each category will have different settings that the user can select from to effectively track their Stress Monitoring data.

Below the Stress Monitoring settings, the user will see Edit, Cancel, Save, and Back buttons. If the user chooses to edit their settings, they will need to select the Edit button and make the desired changes. Once the changes are made, the user will select the Save button so that the desired settings are saved. However, if the user wants to cancel any changes, then they will select the Cancel button and no changes will be saved. The user can also select the Back button. This will take them back to the Stress Monitoring page.

### Sleep Monitoring



Figure Sleep Monitoring diagram

#### Track My Health: Sleep Monitoring

On the Track My Health home page, the user can select the Sleep Monitoring feature icon. This will direct them to the Sleep Monitoring page. On the Sleep Monitoring page, the system will display a Graph button and a Table button, below the Sleep Monitoring sub-header. If the user selects the Graph button, then they will be able to see a Sleep Monitoring graph with an x-axis and a y-axis.

The x-axis will reflect the date/time parameters of the data recordings, while the y-axis will show several color-coded variables; such as sleep duration (orange), deep sleep duration (blue), number of time the user woke up (purple), and sleep quality (green). Please refer to the formula document for further details on any parameters, or measures, listed in this section.

The user will be able to select the desired time interval parameters via a drop down box above the graph. If the user clicks on the drop down box, they will be able to change the time parameter to daily, weekly, or monthly; which will be displayed below the graph. To the right of the drop down, the user can choose the desired start and end date/time via the start and end tabs.

Within the graph, the user will be able to see a single bar, or clustered bars, that reflect data over time (Bar Graph/Cluster Bar Graph). However, if there is no data to display, then there will be a notification that states "You have no data to graph." Nonetheless, for daily tracking, the system will display just one bar that reflects the raw data parameters and associated colors. However, for weekly/monthly tracking, the graph will show two bars that represent the mean (left bar) and the standard deviation (right bar) for the data parameters and associated colors.

It is important to note that each sleep variable will be measured differently. For instance, sleep duration and deep sleep duration will be measured in hours. The number of times the user wakes up will be reflected by the actual numbers. Finally, Sleep quality will be measured using a scale from 1 to 10. Each variable will be tracked and reflected in the graph according to their particular color and measurement parameters.

To the right of the end tab, there will be a Raw data button. If the user selects this, then they can view the graph information in raw data format. With the raw data format, the system will display several parameters on the y-axis; such as HR, Skin temp., GSR, g-values (i.e. X, Y, and Z variables), and Activity level.

Each of these parameters will be represented a light red line, yellow line, black line, green line, red line, blue line, and a dark blue line, respectively. These lines will represent each parameter's data over time. Under the graph, the user can select the Date/Time section to display a pop-up calendar. This will allow the user to select a desired start and end date/time.

Aside from a graph, the user can select the Table format. With the table format, the system will display several columns to represent Day/Week/Month, Sleep duration, Deep sleep, Wake up number (Wake up #), and Sleep quality. Under each table header (i.e. Day/Week/Month, Sleep duration, etc.), there will be several entry fields to reflect the data collected over time for each category.

For the Date/Time parameter, the user will be able to select the desired time interval parameters via a drop down box above the graph. If the user clicks on the drop down box, they will be able to change the time parameter to daily, weekly, or monthly. With daily tracking, the table will display only one column per parameter to reflect the raw data.

However, with weekly/monthly tracking, the system will display two columns per parameter to show the mean and standard deviation for each parameter. The tracking time interval will be indicated by the title of the table (e.g. Monthly statistics). To the right of the drop down, the user can choose the desired start and end date/time via the start and end tabs.

As with the graph, the user can choose to view the table in Raw data format. With the Raw data Sleep Monitoring table, the system will display a number of columns that represent Date/Time, HR, skin temperature, GSR, g-values (X, Y, and Z variables), and Activity level. Under each table header (i.e. Date/Time, HR, etc.), there will be several entry fields to reflect the data collected over time for each category. For the Date/Time field, the user can select Date/Time and a pop-up calendar will display for the user to select the desired start and end date/time.

Below the graph/table section, the system will display a Diagnosis and Recommendations field. Initially, the Diagnosis and Recommendations section will have a notification that reads "This page displays your current medical issues and the date that they were noted in your medical record. Click on the issue name for more in-depth information on that particular issue." By following the notification directions, the user will be able to retrieve details about their current diagnosis and previous diagnoses. It will also detail recommendations based on the diagnoses provided.

Beneath Diagnosis and Recommendations, there will be a Settings button and a Back to Track My Health button. If the user selects the Settings button, they will be directed to the Sleep Monitoring Settings page. However, if the user selects the Back to Track My Health button, then they will be transferred to the Track My Health home page.

#### Track My Health: Sleep Monitoring - Settings

On the Sleep Monitoring Settings page, the system will display a notification, under the Sleep Monitoring Settings sub-header, that states "This page displays the current settings of this feature." Below the notification, the user will see settings categories that the user can change; such as Heart rate sample rate, GSR sample rate, Accelerometer sample rate, and Skin temperature sample rate. Please refer to the formula document for further details on any parameters, or measures, listed in this section.

For each category, the user can choose the desired settings. For example, the user can select a ten millisecond interval for Heart rate sample rate. The user can also select the appropriate GSR sample rate, Accelerometer sample rate, and Skin temperature sample rate. Each category will have different settings that the user can select from to effectively track their Sleep Monitoring data.

Below the above settings, the user has the option to modify the Alarm setting to Auto or Manual. The user can also automatically set their sleep duration parameter. For example, the user can set it to 8 hours. Also, the user can utilize the Manual setting to manually add alarms. The user can do this by selecting a desired Weekday and Time via clicking on the respective fields.

Below the Sleep Monitoring settings, the user will see Edit, Cancel, Save, and Back buttons. If the user chooses to edit their settings, they will need to select the Edit button and make the desired changes. Once the changes are made, the user will select the Save button so that the desired settings are saved. However, if the user wants to cancel any changes, then they will select the Cancel button and no changes will be saved. The user can also select the Back button. This will take them back to the Sleep Monitoring page.

### Position Monitoring



Figure Position Monitoring diagram

#### Track My Health: Position Monitoring

On the Track My Health home page, the user can select the Position Monitoring feature icon. This will direct them to the Position Monitoring page. On the Position Monitoring page, the system will display a Graph button and a Table button, below the Position Monitoring sub-header. If the user selects the Graph button, they can opt to view their Position Monitoring graph, or their raw data Activity graph. They can view their the raw data Activity graph by selecting the Raw data button above the graph (on the right side of the screen).

With the Position Monitoring graph, the user will see a graph with an x-axis and a y-axis. The x-axis will reflect the date/time parameters of the data recordings, while the y-axis will show the user's color-coded sleep position; such as Supine (blue - lying with face up), Prone (red - lying with face down), Left (purple), Right (orange), Up (green), and Down (turquoise green). Please refer to the formula document for further details on any parameters, or measures, listed in this section.

Within the graph, the system will display dots that represent the user's sleep position over time. However, if there is no data to display, then there will be a notification that states "You have no data to graph." Under the graph, the user can select the Date/Time section to display a pop-up calendar. This will allow the user to select a desired start and end date/time.

In looking at the raw data Activity graph, the user will also see a x-axis and a y-axis. The x-axis will still reflect the date/time parameters of the data recordings. However, the y-axis will represent the raw g-values over time (i.e. X, Y, and Z variables). Within the graph, the system will detail a color-coded line for each variable. For example, X will be green, Y will be red, and Z will be blue. Each line will represent the raw g-value data recorded over time.

Aside from a graph, the user can select the Position Monitoring Table format. With the table format, the system will display several columns to represent Date/Time, Position, and Alarm. Under each column header (i.e. Date/Time, Position, etc.), there will be several entry fields to reflect the data collected over time for each category. For the Date/Time field, the user can select Date/Time and a pop-up calendar will display for the user to select the desired start and end date/time.

As with the graph, the user can view the Activity table in raw data format. With the raw data Activity table, the system will display several columns that represent Date/Time and the raw g-values (i.e. X, Y, and Z variables). Under each table header (i.e. Date/Time, X, etc.) there will be several entry fields to reflect the data collected over time for each category. For the Date/Time field, the user can select Date/Time and a pop-up calendar will display for the user to select the desired start and end date/time.

Below the graph/table section, the system will display a Diagnosis and Recommendations field. Initially, the Diagnosis and Recommendations section will have a notification that reads "This page displays your current medical issues and the date that they were noted in your medical record. Click on the issue name for more in-depth information on that particular issue." By following the notification directions, the user will be able to retrieve details about their current diagnosis and previous diagnoses. It will also detail recommendations based on the diagnoses provided.

Beneath Diagnosis and Recommendations, there will be a Settings button and a Back to Track My Health button. If the user selects the Settings button, they will be directed to the Position Monitoring Settings page. However, if the user selects the Back to Track My Health button, then they will be transferred to the Track My Health home page.

#### Track My Health: Position Monitoring - Settings

On the Position Monitoring Settings page, the system will display a notification, under the Position Monitoring Settings sub-header, that states "This page displays the current settings of this feature." Below the notification, the user will see settings categories that the user can change; such as Sample rate and Alarm position setting. Please refer to the formula document for further details on any parameters, or measures, listed in this section.

For each category, the user can choose the desired settings. For example, the user can select a five minute interval for Sample rate. Below the Sample rate setting, the user also has the option to modify the Alarm position setting by selecting the check box of any/all of the sleep positions that they wish to be alerted for (e.g. Supine, Prone, etc.).

Below the Position Monitoring settings, the user will see Edit, Cancel, Save, and Back buttons. If the user chooses to edit their settings, they will need to select the Edit button and make the desired changes. Once the changes are made, the user will select the Save button so that the desired settings are saved. However, if the user wants to cancel any changes, then they will select the Cancel button and no changes will be saved. The user can also select the Back button. This will take them back to the Position Monitoring page.

### Fertility Monitoring



Figure Fertility Monitoring diagram

#### Track My Health: Fertility Monitoring

From the Track My Health page, the user can select the Fertility Monitoring feature icon. Upon selecting the Fertility Monitoring feature icon, the user will be directed to the Fertility Monitoring page. On the Fertility Monitoring page, the system will display a Graph button and a Table button, below the Track My Health and Fertility Monitoring sub-headers.

If the user selects the Graph button, the user will see a Fertility Monitoring graph with an x-axis and a y-axis. The x-axis will reflect the specific days, month and year of the data recordings, while the y-axis will show the user's temperature data. Please refer to the formula document for further details on any parameters, or measures, listed in this section.

Within the graph, the user should see various fertility parameters. However, if there is no data to display within the graph, the system will show a notification that states "You have no data to graph." Nonetheless, if there is data to graph, then the system should display black dots in chronological order; from left to right. The black dotswill detail the user's previous ovulation date. The dark green dot will predict the user's next ovulation date.

The system will also display a light green line within the chart, which predicts the user's most fertile time. On the green line, the user will be able to see a dark green segment that represents the user's greatest opportunity to get pregnant (2 day window). Below the green lines, there will be a red line that details the temperature data over time. At the bottom of the graph, the user will be able to see triangles. The black triangle reflects the start of the user's previous period. On the other hand, the red triangle represents the predicted start of the user's next period.

An important function of this graph is the days, month, and year section. Below the graph, the user will only be able to view a certain number of days at a time (i.e. 6 days). The system will display a "<<" before the first day shown, as well as a ">>" after the last day shown. By selecting these arrows, the user can move backward, or forward, in time as they track their fertility data. Below the number of days, the user can also view the desired month and year related to their data via selecting the arrow tabs.

Aside from a graph, the user can select the Table format. With the table format, the system will display three sections of data; namely, a Fertility section, an Advance Prediction section, and a Statistics section. In the first section of data (Fertility Section), the user will see several columns to represent months in sequence (e.g. October, November, and December).

There will also be rows of information that relate to Start of period, Ovulation date, Most fertile time, and Most pregnant time. Under each month column, there will be several entry fields to reflect the data collected over time for each category. The user can change the monthly time frames by selecting the designated arrow tabs displayed before the first month, as well as after the last month listed.

Under the Advance Prediction section, the system will similarly display several columns to represent months in sequence. However, the rows of data will pertain to Startof next period, Next ovulation date, Next most fertile time, and Next most pregnant time. The user can also change the monthly time frames by selecting the designated arrow tabs displayed before the first month, as well as after the last month listed.

Below the Advance Prediction data, the system will display a Statistics section. In the Statistics section, there will be a list of several fertility statistical measures; such as Cycles tracked N (number of cycles tracked), Average cycle length, Cycle length variation, Average ovulation time, Longest cycle, and Shortest cycle. Next to each statistical measure, there will be data entry fields that will display the respective statistical data.

Below the graph/table section, the system will display a Diagnosis and Recommendations field. Initially, the Diagnosis and Recommendations section will have a notification that reads "This page displays your current medical issues and the date that they were noted in your medical record. Click on the issue name for more in-depth information on that particular issue." By following the notification directions, the user will be able to retrieve details about their current diagnosis and previous diagnoses. It will also detail recommendations based on the diagnoses provided.

Beneath Diagnosis and Recommendations, there will be a Settings button and a Back to Track My Health button. If the user selects the Settings button, they will be directed to the Fertility Monitoring Settings page. However, if the user selects the Back to Track My Health button, then they will be transferred to the Track My Health home page.

#### Track My Health: Fertility Monitoring - Settings

On the Fertility Monitoring Settings page, the system will display a notification, under the Fertility Monitoring Settings sub-header, that states "This page displays the current settings of this feature." Below the notification, the user will be able to change the Input temperature setting to Automatic or Manual. Please refer to the formula document for further details on any parameters, or measures, listed in this section.

Below the Fertility Monitoring settings, the user will see Edit, Cancel, Save, and Back buttons. If the user chooses to edit their settings, they will need to select the Edit button and make the desired changes. Once the changes are made, the user will select the Save button so that the desired settings are saved. However, if the user wants to cancel any changes, then they will select the Cancel button and no changes will be saved. The user can also select the Back button. This will take them back to the Fertility Monitoring page.