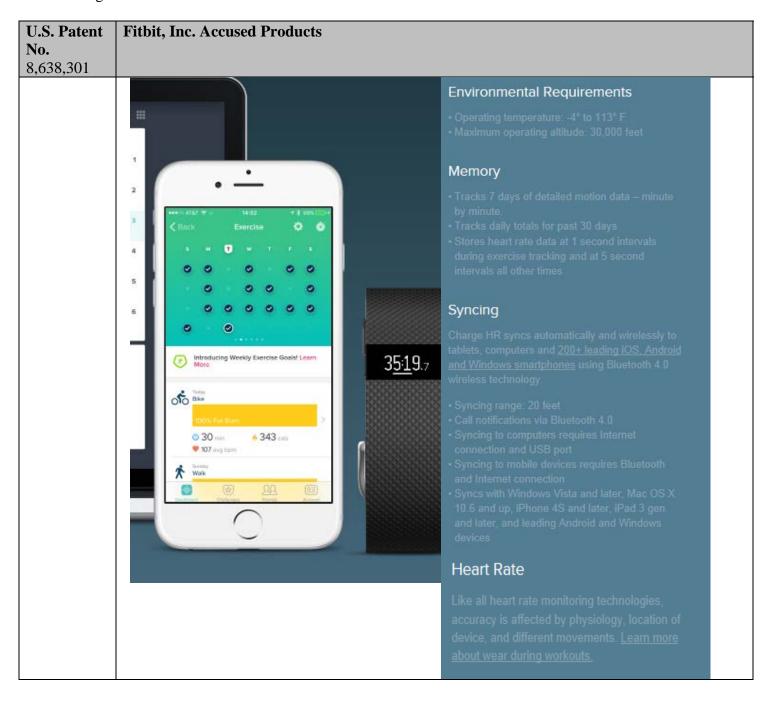
# **C**-6

# **Immersion Corporation** U.S. Patent No. 8,638,301

## **Infringement Contentions to Fitbit, Inc.**

U.S. Patent	Fitbit, Inc. Accused Products		
No.			
8,638,301			
Claim 27. A	The Fitbit Accused Product, the Charge HR, (hereinafter "the Accused Product") provides a		
system	system.		
comprising:			
	The Fitbit Accused Products provide system of an interaction between a fitness tracker band and		
	a smartphone. See <a href="https://www.ifixit.com/Guide/Fitbit+charge+HR+Disassembly/56621">https://www.ifixit.com/Guide/Fitbit+charge+HR+Disassembly/56621</a> ;		
	http://www.techinsights.com/reports-and-subscriptions/open-market-reports/Report-		
	Profile/?ReportKey=10707		
	For example, the Accused Products practices a system as a fitness tracker band synchronizing		
	with a smartphone.		

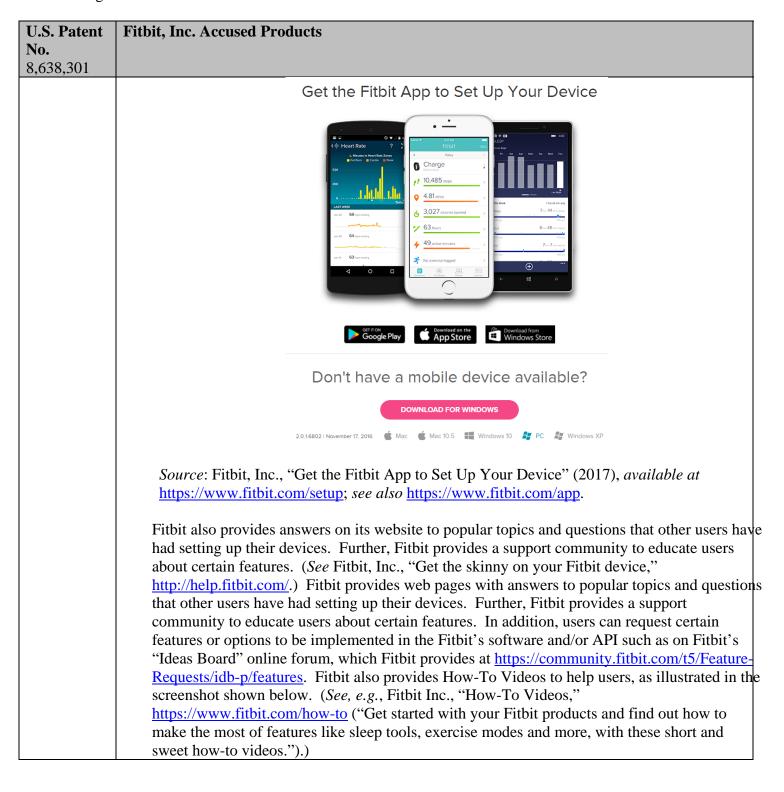
<b>U.S. Patent No.</b> 8,638,301	Fitbit, Inc. Accused Products	
	12:45 <sup>60</sup>	PurePulse™ Heart Rate Get continuous, automatic, wrist-based heart rate & simplified heart rate zones
	3	Workouts + All-Day Activity  Track steps, distance, calories burned, floors climbed, active minutes, heart rate, hourly activity & stationary time
		Caller ID + Watch
		See daily stats & time of day, and get call notifications with compatible devices
		SmartTrack™
	<b>3</b>	Automatically recognizes when you exercise & records it in the Fitbit app
		Exercise Mode
		Record workouts to get real-time stats & see post-workout summaries
		Long Battery Life
		Lasts longer than competing trackers with a battery life up to 5 days*
		Auto Sleep + Alarms
	G	Monitor your sleep automatically & set a silent alarm
		Wireless Syncing
		Sync stats wirelessly & automatically to leading smartphones and computers
	Source: Fitbit, Inc., Charge HR (2017), available at https://www.html.	//www.fitbit.com/chargehr.
	In particular, the Accused Product is configured to pair or s	sync with a smartphone.



'301 Infringer	ment Contentions
<b>U.S. Patent No.</b> 8,638,301	Fitbit, Inc. Accused Products
	Source: Fitbit, Inc., Charge HR Specs (2017), available at <a href="https://www.fitbit.com/chargehr">https://www.fitbit.com/chargehr</a> .
	INDIRECT INFRINGEMENT
	Fitbit indirectly infringes the '301 patent, under 35 U.S.C. § 271(b), by inducing infringement by others, such as manufacturers, resellers, developers, and customers, and end-users, and/or providing the fitness watch and a smartphone as components for use in an system of an interaction between a fitness watch and a smartphone that practices the invention in accordance with the element-by-element mapping of features to claim elements set forth in this chart for this claim and its dependent claims.
	As the element-by-element mapping shows, Fitbit provides ample "help" documentations that instruct a user in how to use the system to perform each of the functions which are described.

Further, Fitbit provides instructions on how a user can set up a device and install software suc that the features are enabled.

For example, Fitbit provides a setup website to help and support the user to "Get the Fitbit Ap to Set Up Your Device" at <a href="https://www.fitbit.com/setup">https://www.fitbit.com/setup</a>. At that site, Fitbit specifically instructs the user to download the Fitbit App from one of several websites (e.g., Google Play, Apple App Store, or Windows Store). Further, if the user does not have a mobile device, Fitb instructs that the user can download an application for an Apple or Windows personal computer. Fitbit provides further instructions and help to set up a user's device, as well.



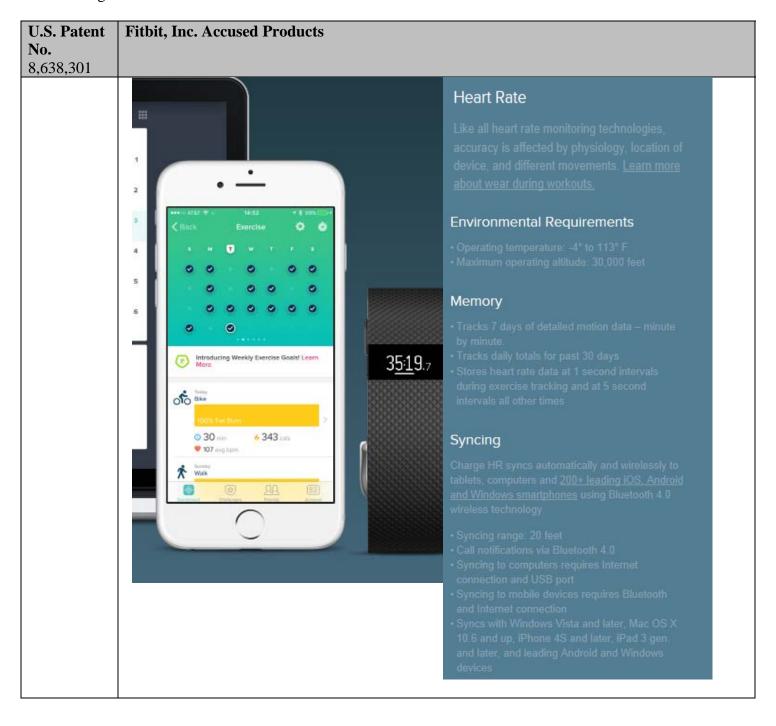
U.S. Patent No. 8,638,301	Fitbit, Inc. Accused Products		
0,030,301	How-To Videos		
	Get started with your Fitbit products and find out how to make the most of features like sleep tools, exercise modes and more, with these short and sweet how-to videos.		
	How To Get Started With Fitbit  7VIDEOS  Fitbit Blaze How-To Videos  Fitbit Alta How-To Videos  5 VIDEOS		
	Fitbit Charge 2 How-To Videos  Fitbit Flex 2 How-To Videos  Fitbit Flex 2 How-To		
	Source: Fitbit Inc., "How-To Videos," available at https://www.fitbit.com/how-to.		
a processor configured	The Accused Product includes a processor.		
to:	For example, the Accused Product includes STMicroelectronics STM32L151RD ARM-Based 32-Bit Microntroller. Further, the Microcontroller (i.e. processor) is configured to perform various instructions as listed below.		
	The <i>Deep Dive Teardown of the Fitbit Charge HR FB405BKS-EU- Bluetooth 4.0 / NFC Sync Fitness Watch</i> and <i>Charge HR</i> identifies the components of the Accused Product containing a microcontroller (i.e. processor) and these different types of sensors (e.g. accelerometer, altimeter, optical heart rate tracker). The microcontroller (i.e. processor), as identified in the picture below, is a microcontroller that is configured to perform various instructions.		

<b>i.S. Patent io.</b> 638,301	Fitbit, Inc. Accused Products			
		Product Type	Fitness Wristwatch	
		Brand	Fitbit	
	A 22.44	Device Name	Charge HR	
	22:44	Device Model #	FB405BKS-EU	
		Official Release Date	1/15/2015	
		Target Market	Europe	
		Retail Price	\$149.95	
		Weight (grams)	23.8 (Measured)	
		Device Dimensions (mm)	204.4 x 21.3 x 12.7 (Measured at Longest/Widest/Thickest Points)	
		Product Features	Product Features	
		Operating System	Proprietary	
http:		Processor Spec	STMicroelectronics STM32L151RD ARM-Based 32-Bit Microcontroller	
	Bluetooth 4.0 / NFC Sync Fitness Watch (201 http://www.techinsights.com/reports-and-subsprofile/?ReportKey=10707.		et-reports/Report-	
		User Interface	Functional Button	
	27:44	Storage	Internal: 512 KB Serial Flash Memory	
			External: None	
		Sensors	3-Axis MEMS Accelerometer (2) MEMS Micro Altimeter Module, Optical Heart Rate Sensor	
		Battery Type	3.7 V Li-Polymer	
		Battery Life	Use Time: 5 days	
		Display	0.7" OLED, 32 x 72, Monochrome	
	Source: TechInsights Inc., Deep Dive Teardon	wn of the Fitbit Char	ge HR FB405BKS-EU-	

<b>U.S. Patent No.</b> 8,638,301	Fitbit, Inc. Accused Products		
	Sizing  Small Large X-Large*  Size x		
receive a first sensor signal from	The Accused Product includes a processor configured to receive a first sensor signal from a first sensor, the first sensor configured to detect a movement of a first mobile device.		
a first sensor, the first sensor configured to detect a	For example, the Accused Product includes a processor configured to receive sensor signals from at least the MEMS 3-axis accelerometer sensor (i.e. first sensor). Further, this sensor is configured to detect and track a user's movement or a variety of statistics, including steps taken, on the Accused Product (i.e. first mobile device).		
movement of a first mobile device;	The pictures from the Charge HR Specs and the Charge HR Product Manual below show the accelerometer sensor, which tracks a user motion patterns. The further picture from the Charge HR Specs shows the synchronization and notification between the Accused Product and the smartphone (e.g. iPhone, Android or Window device). The Charge HR Features picture further		

TIC D 4 4			
U.S. Patent No.	Fitbit, Inc. Accused Products		
8,638,301			
0,030,301	illustrates that the connected Accused Product uses the user's phone to see real-time stats like		
	daily motion, minute by minute, and heart rate.		
	Sizing		
	Const. Large Vilarget		
	12:4584		
	(( size x-large* )) fits wrists		
	7.6" - 8.7"		
	.83"		
	Sizing varies across trackers. Use <u>this guide</u> to		
	pick the right fit & size up if you're between size		
	* X-large size only available online at Fitbit.com		
	Sensors & Components		
	Optical heart rate monitor		
	3-axis accelerometer     Altimeter		
	Vibration motor		
	Display		
	• OLED		
	Heart Rate		
	Like all heart rate monitoring technologies, accuracy is affected by physiology, location of		
	device, and different movements. Learn more		
	about wear during workouts.		
	Source: Fitbit, Inc., Charge HR Specs (2017), available at <a href="https://www.fitbit.com/chargehr">https://www.fitbit.com/chargehr</a> .		

U.S. Patent	Fitbit, Inc. Accused Products	
<b>No.</b> 8,638,301		
	Sensors and motors  Your Charge HR uses a MEMS 3-axis accelerometer to measure your motion pattern and determine your steps taken, distance traveled, calories burned, and sleep quality Charge HR also contains:  • An altimeter, which measures floors climbed • A vibration motor, which allows it to vibrate when alarms go off, when you reach a goal, and when you receive call notifications • An optical heart rate tracker, which measures your beats per minute (BPM) at rest and when you are exercising	
	Charge HR contains a rechargeable lithium-polymer battery.  Source: Fitbit, Inc., Charge HR Manual (2017), p. 24, available at <a href="https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf">https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf</a> .	



'301 Infringement Contentions			
U.S. Patent No. 8,638,301	Fitbit, Inc. Accused Products		
	Source: Fitbit, Inc., Charge HR Specs (2017), a	vailable at https://www.fithit.com/chargehr	
	Som cell lich, inel, enange litt spees (2017), a	The No. W. School St.	
		PurePulse™ Heart Rate  Get continuous, automatic, wrist-based heart rate & simplified heart rate zones	
	3	Workouts + All-Day Activity	
		Track steps, distance, calories burned, floors climbed, active minutes, heart rate, hourly activity & stationary time	
		Exercise Mode	
		Record workouts to get real-time stats & see post-workout summaries	
		SmartTrack™  Automatically recognizes when you exercise & records it in the Fitbit app	

Source: Fitbit, Inc., Charge HR Features (2017), available at https://www.fitbit.com/chargehr.

<b>U.S. Patent No.</b> 8,638,301	Fitbit, Inc. Accused Products		
	Automatic tracking with Fitbit Charge HR		
	Your Charge HR has you covered day and night.		
	Tracking all-day stats		
	Your Charge HR automatically tracks the following all-day stats:		
	<ul> <li>Steps taken</li> <li>Current heart rate</li> <li>Distance covered</li> <li>Calories burned</li> <li>Floors climbed</li> </ul> In addition to the stats displayed on your Charge HR, the following stats are also tracked but shown only on your fitbit.com dashboard or in the Fitbit app:		
	<ul> <li>Detailed heart rate history, including time spent in heart rate zones</li> <li>Active minutes</li> <li>Hours slept and quality of sleep</li> </ul>		
	To scroll through your stats simply press the button on the side of your Charge HR. You'll see the time followed by an icon and stat in turn. If you have an alarm set, your display will also show the next alarm time.		
	. <b>:</b> ♥ ♥ ¾ &		
	Steps Heart rate Distance Floors Calories		
	When you sync your Charge HR, your all-day stats are uploaded to your fitbit.com dashboard.		
	Your Charge HR starts tracking your stats for the next day at midnight based on your time zone. Though your stats reset to zero at midnight, this does not delete the previous day's data; that data will be uploaded to fitbit.com the next time you sync your tracker.		
	You can adjust your time zone at www.fitbit.com/user/profile/edit.		
	Source: Fitbit, Inc., Charge HR Manual (2017), p. 24, available at <a href="https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf">https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf</a> .		

U.S. Patent No. 8,638,301	Fitbit, Inc. Accused Products			
	How does my tracker count steps?			
	Fitbit trackers use a 3-axis accelerometer to understand your motions. An accelerometer is a device that turns movement (acceleration) into digital measurements (data) when attached to the body. By analyzing acceleration data, our trackers provide detailed information about frequency, duration, intensity, and patterns of movement to determine your steps taken, distance traveled, calories burned, and sleep quality. The 3-axis implementation allows the accelerometer to measure your motion in any way that you move, making its activity measurements more precise than older, single-axis pedometers.			
	Fitbit trackers have a finely tuned algorithm for step counting. The algorithm is designed to look for motion patterns that are most indicative of people walking. The algorithm determines whether a motion's size is large enough by setting a threshold. If the motion and its subsequent acceleration measurement meet the threshold, the motion will be counted as a step. If the threshold is not met, the motion won't be counted as a step. Other factors can create enough acceleration to meet our threshold and cause some over counting of steps, such as riding on a bumpy road. Equally, it's possible for the algorithm to undercount (not meet the required acceleration threshold). Examples here include walking on a very soft surface such as a plush carpet.  **Source: Fitbit, Inc., *Fitbit Help - How does my tracker count steps?* (Last updated: March 14, 2017), *available at <a href="https://help.fitbit.com/articles/en_US/Help_article/1143">https://help.fitbit.com/articles/en_US/Help_article/1143</a> .			
receive a second sensor	The Accused Products provide a processor that is configured to receive a second sensor signal from a second sensor, the second sensor configured to detect an interaction with the first mobile device.			
signal from a second sensor, the second sensor configured	For example, the Accused Products provide a processor that is configured to receive another signal (i.e. second sensor signal) from the tap gesture (i.e. second sensor). Further, the Accused Product the tap gesture (i.e. second sensor) configured to detect an interaction with the Accused Product (e.g. first mobile device).			
to detect an interaction with the first mobile device;	As shown in the pictures below, the Accused Product provides a tap gesture, which is seen in the Charge HR Specs and the Charge HR Product Manual. In the following Charge HR Product Manual picture, the picture describes the tap gesture interaction with the mobile device (e.g. iPhone or Android), which makes sure that the tracker and the mobile phone (i.e. mobile device) can communicate with each other. Further, the Charge HR Product Manual picture describes how the tap gesture is used to connect the Accused Product with the mobile phone (i.e. mobile device).			

<b>U.S. Patent No.</b> 8,638,301	Fitbit, Inc. Accused Products		
	12:45 PM	Sizing  Small Large X-Large*  size x-large* fits wrists 7.6" - 8.7"  Sizing varies across trackers. Use this guide to pick the right fit & size up if you're between size * X-large size only available online at Fitbit.com	
		Sensors & Components  Optical heart rate monitor  - 3-axis accelerometer  - Altimeter  - Vibration motor	
		Display - OLED	
		Heart Rate  Like all heart rate monitoring technologies, accuracy is affected by physiology, location of device, and different movements. Learn more about wear during workouts.	
	Source: Fitbit, Inc., Charge HR Specs (2017), available at <a href="https://www.fitbit.com/chargehr">https://www.fitbit.com/chargehr</a> .  Display  OLED  Source: Fitbit, Inc., Charge HR Specs (2017), available at <a href="https://www.fitbit.com/chargehr">https://www.fitbit.com/chargehr</a> .		
	<ul> <li>Tap Gesture: If you want your Charge HR to respond to taps, choose which stat you want to appear when you double tap your device.</li> <li>Source: Fitbit, Inc., Charge HR Manual (2017), p. 17, available at <a href="https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf">https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf</a>.</li> </ul>		
receive a first data	The Accused Products provide a processor configured to receive a first data signal from a network interface, the network interface configured to receive signals transmitted by a second		

U.S. Patent	Fitbit, Inc. Accused Products
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8,638,301	
signal from	mobile device.
a network	
interface,	For example, the Accused Products include a processor configured to receive data signals (i.e.
the network	data signal) via a Bluetooth transceiver (i.e. network interface). The Bluetooth transceiver is
interface	configured to receive signals transmitted by a smartphone (i.e., The Fitbit app is available for
configured	more than 200 mobile devices that support iOS, Android, and Windows 10 operating systems.),
to receive	a second mobile device. Specifically, for example, the processor in the Accused Product
signals	receives data via the Bluetooth transceiver when the user of the Fitbit application changes the
transmitted	daily step count goal from 10,000 steps per day to 20,000 steps per day.
by a second	
mobile	Collectively, the pictures below show and illustrate the Accused Product that connects to the
device;	Bluetooth transceiver and the transceiver can connect to numerous mobile devices.



Like all heart rate monitoring technologies, accuracy is affected by physiology, location o device, and different movements. <u>Learn more about wear during workouts.</u>



Source: Fitbit, Inc., Charge HR Specs (2017), Available at https://www.fitbit.com/chargehr.



Connectivity	Bluetooth 4.0, NFC Sync
User Interface	Functional Button
Storage	Internal: 512 KB Serial Flash Memory
	External: None
Sensors	3-Axis MEMS Accelerometer (2), MEMS Micro Altimeter Module, Optical Heart Rate Sensor
Battery Type	3.7 V Li-Polymer
Battery Life	Use Time: 5 days
Display	0.7" OLED, 32 x 72, Monochrome

Source: TechInsights Inc., Deep Dive Teardown of the Fitbit Charge HR FB405BKS-EU-

U.S. Patent	Fitbit, Inc. Accused Products
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	Bluetooth 4.0 / NFC Sync Fitness Watch (2017), available at
	http://www.techinsights.com/reports-and-subscriptions/open-market-reports/Report-
	Profile/?ReportKey=10707.
	Syncing your tracker data to your Fitbit account
	Once you've set up and started using Charge HR, you'll need to make sure it regularly transfers (syncs) its data to Fitbit so you can track your progress, see your exercise history, earn badges, analyze your sleep logs, and more on your Fitbit dashboard. A daily sync is recommended but not required.
	The Fitbit apps use Bluetooth Low Energy (BLE) technology to sync with your Fitbit tracker. Each time you open the app it will sync if the tracker is nearby, and the app will also sync periodically throughout the day if you have the all-day sync setting enabled. If you're running the Fitbit app on a Windows 10 PC that doesn't have Bluetooth, you'll need to make sure the tracker is connected to the computer.
	Fitbit Connect on a Mac® also uses Bluetooth for syncing (if available), otherwise you'll need to make sure your wireless sync dongle is plugged into the computer. You can force Fitbit Connect to sync at any time or it will happen automatically every 15 minutes if:
	<ul> <li>The tracker is within 20 feet of your computer.</li> <li>The computer is powered on, awake, and connected to the Internet.</li> </ul>
	Source: Fitbit, Inc., Charge HR Manual (2017), p. 24, available at
	https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf.

U.S. Patent	Fitbit, Inc. Accused Products
No.	
8,638,301	
	Automatic tracking with Fitbit Charge HR
	Your Charge HR has you covered day and night.
	Tracking all-day stats
	Your Charge HR automatically tracks the following all-day stats:
	<ul> <li>Steps taken</li> <li>Current heart rate</li> <li>Distance covered</li> <li>Calories burned</li> <li>Floors climbed</li> </ul>
	In addition to the stats displayed on your Charge HR, the following stats are also tracked but shown only on your fitbit.com dashboard or in the Fitbit app:
	<ul> <li>Detailed heart rate history, including time spent in heart rate zones</li> <li>Active minutes</li> <li>Hours slept and quality of sleep</li> </ul>
	To scroll through your stats simply press the button on the side of your Charge HR. You'll see the time followed by an icon and stat in turn. If you have an alarm set, your display will also show the next alarm time.
	÷ ♥ ♥ ¾ &
	Steps Heart rate Distance Floors Calories
	When you sync your Charge HR, your all-day stats are uploaded to your fitbit.com dashboard.
	Your Charge HR starts tracking your stats for the next day at midnight based on your time zone. Though your stats reset to zero at midnight, this does not delete the previous day's data; that data will be uploaded to fitbit.com the next time you sync your tracker.
	You can adjust your time zone at www.fitbit.com/user/profile/edit.
	Source: Fitbit, Inc., Charge HR Manual (2017), p. 24, available at <a href="https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf">https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf</a> .
	As another example, the Accused Products include a processor configured to receive data signals via a Bluetooth transceiver, a network interface. The Bluetooth transceiver is configured to receive signals transmitted by a smartphone (i.e. second mobile device) (e.g., The Fitbit app is available for more than 200 mobile devices that support iOS, Android, and Windows 10 operating systems.) Specifically, for example, the processor in the Accused Product is

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	configured to receive data via the Bluetooth transceiver when the user of the Fitbit application ("app") configures the Daily activity goal, which sets the daily goal based on Fitbit app settings.
	Tracking a daily activity goal
	Your Charge HR is designed to track your progress towards a goal that you define on your fitbit.com dashboard. A progress bar below your goal keeps you motivated throughout the day. When you reach your goal your Charge HR will vibrate and flash to celebrate.
	By default, the daily goal is set to 10,000 steps per day. You can set a daily goal for steps taken, distance traveled, calories burned, or floors climbed.
	Changing your goal
	If you want to track a different daily goal, you can choose a goal from the Fitbit app or in the fitbit.com dashboard.
	To choose your goal from the dashboard:
	<ul><li>5. Log in to your fitbit.com dashboard.</li><li>6. Click the gear icon in the top-right corner of the page.</li><li>7. Click Settings.</li></ul>
	<ol> <li>Select your tracker and then find and edit the Daily Goal Progress setting.</li> <li>Sync your Charge HR to update your tracker with the new goal:         <ul> <li>Click the Fitbit Connect icon located near the date and time on your computer.</li> <li>With your Charge HR nearby, click Sync Now.</li> </ul> </li> </ol>
	Setting a value for your daily goal
	You can set a specific value for your daily goal in the Fitbit app or on the fitbit.com dashboard. For example, instead of the default daily goal value of 10,000 steps per
	day, you may want your Charge HR to vibrate and flash when you reach 15,000 steps per day. To change your goal value:
	1. Log into your fitbit.com dashboard. 2. Find the tile that corresponds to your goal. 3. Click the gear icon in the lower left corner of the tile. 4. Change your Daily Goal value and click Save.
	<ol> <li>Change your Daily Goal value and click Save.</li> <li>Sync your Charge HR to update your tracker with the new value you have chosen.</li> </ol>
	<ul> <li>a. Click the Fitbit Connect icon located near the date and time on your computer.</li> <li>b. With your Charge HR nearby, click Sync Now.</li> </ul>
	Source: Fitbit, Inc., Charge HR Manual (2017), p. 24, available at
	https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf

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	The Fitbit app on the mobile device (e.g. Android or Apple smartphone) connects to the Fitbit Charge HR via Bluetooth. Next, the Fitbit app transmits the daily activity goal to the Fitbit Charge HR tracker for the user as shown below.
	Changing your goal
	If you want to track a different daily goal, you can choose a goal from the Fitbit app or in the fitbit.com dashboard.
	To choose your goal from the dashboard:
	<ol> <li>Log in to your fitbit.com dashboard.</li> <li>Click the gear icon in the top-right corner of the page.</li> <li>Click Settings.</li> <li>Select your tracker and then find and edit the Daily Goal Progress setting.</li> <li>Sync your Charge HR to update your tracker with the new goal:         <ul> <li>Click the Fitbit Connect icon located near the date and time on your computer.</li> <li>With your Charge HR nearby, click Sync Now.</li> </ul> </li> </ol>
	Source: Fitbit, Inc., Charge HR Manual (2017), p. 10, available at <a href="https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf">https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf</a>
	Further, the Fitibit App, for example, synchronizes ("syncs") with the Fitbit Charge HR. As shown below, the Fitbit App on the mobile device transfers data to the Fitbit Charge HR, such as settings or configurations, via Bluetooth Low Energy (BLE) technology.

U.S. Patent No.	Fitbit, Inc. Accused Products
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	Setting a value for your daily goal
	You can set a specific value for your daily goal in the Fitbit app or on the fitbit.com dashboard. For example, instead of the default daily goal value of 10,000 steps per
	10
	day, you may want your Charge HR to vibrate and flash when you reach 15,000 steps per day. To change your goal value:
	<ol> <li>Log into your fitbit.com dashboard.</li> <li>Find the tile that corresponds to your goal.</li> <li>Click the gear icon in the lower left corner of the tile.</li> <li>Change your Daily Goal value and click Save.</li> <li>Sync your Charge HR to update your tracker with the new value you have</li> </ol>
	chosen.  a. Click the Fitbit Connect icon located near the date and time on your computer.  b. With your Charge HR nearby, click Sync Now.
	Source: Fitbit, Inc., Charge HR Manual (2017), p. 10–11, available at
	https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf.
determine a change in a display	The Accused Product includes a processor configured to determine a change in a display signal based at least in part on the first data signal and the second sensor signal.
signal based	For example, the Accused Product tracks the progress towards a daily goal as the data. In
at least in	particular, the Accused Product uses its processor that is configured to determine the changes in
part on the first data	the screens (i.e. display signal) based the user's steps and statistics on the steps taken (i.e. first data signal) and the user's interaction or navigation with the tap display input device (i.e. second
signal and	sensor signal) that sets up the a tracking exercise.
the second	
sensor	The pictures below show that the Accused Product tracks a variety of user's stats. Further, the
signal;	pictures provide how the user can navigate to the exercise app or program for the Accused Product.

U.S. Patent No. 8,638,301	Fitbit, Inc. Accused Products
0,030,301	Automatic tracking with Fitbit Charge HR
	Your Charge HR has you covered day and night.
	Tracking all-day stats
	Your Charge HR automatically tracks the following all-day stats:
	<ul> <li>Steps taken</li> <li>Current heart rate</li> <li>Distance covered</li> <li>Calories burned</li> <li>Floors climbed</li> </ul>
	In addition to the stats displayed on your Charge HR, the following stats are also tracked but shown only on your fitbit.com dashboard or in the Fitbit app:
	<ul> <li>Detailed heart rate history, including time spent in heart rate zones</li> <li>Active minutes</li> <li>Hours slept and quality of sleep</li> </ul>
	To scroll through your stats simply press the button on the side of your Charge HR. You'll see the time followed by an icon and stat in turn. If you have an alarm set, your display will also show the next alarm time.
	. <del>:</del> ♥ ♥ ¾ ७
	Steps Heart rate Distance Floors Calories
	When you sync your Charge HR, your all-day stats are uploaded to your fitbit.com dashboard.
	Your Charge HR starts tracking your stats for the next day at midnight based on your time zone. Though your stats reset to zero at midnight, this does not delete the previous day's data; that data will be uploaded to fitbit.com the next time you sync your tracker.
	You can adjust your time zone at www.fitbit.com/user/profile/edit.
	Source: Fitbit, Inc., Charge HR Manual (2017), p. 24, available at <a href="https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf">https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf</a> .

U.S. Patent No. 8,638,301	Fitbit, Inc. Accused Products
, ,	Tracking a daily activity goal
	Your Charge HR is designed to track your progress towards a goal that you define on your fitbit.com dashboard. A progress bar below your goal keeps you motivated throughout the day. When you reach your goal your Charge HR will vibrate and flash to celebrate.
	By default, the daily goal is set to 10,000 steps per day. You can set a daily goal for steps taken, distance traveled, calories burned, or floors climbed.
	Changing your goal
	If you want to track a different daily goal, you can choose a goal from the Fitbit app or in the fitbit.com dashboard.
	To choose your goal from the dashboard:
	<ol> <li>Log in to your fitbit.com dashboard.</li> <li>Click the gear icon in the top-right corner of the page.</li> <li>Click Settings.</li> <li>Select your tracker and then find and edit the Daily Goal Progress setting.</li> <li>Sync your Charge HR to update your tracker with the new goal:         <ul> <li>Click the Fitbit Connect icon located near the date and time on your computer.</li> <li>With your Charge HR nearby, click Sync Now.</li> </ul> </li> </ol>
	Setting a value for your daily goal
	You can set a specific value for your daily goal in the Fitbit app or on the fitbit.com dashboard. For example, instead of the default daily goal value of 10,000 steps per
	day, you may want your Charge HR to vibrate and flash when you reach 15,000 steps per day. To change your goal value:
	<ol> <li>Log into your fitbit.com dashboard.</li> <li>Find the tile that corresponds to your goal.</li> <li>Click the gear icon in the lower left corner of the tile.</li> <li>Change your Daily Goal value and click Save.</li> <li>Sync your Charge HR to update your tracker with the new value you have chosen.         <ol> <li>Click the Fitbit Connect icon located near the date and time on your computer.</li> <li>With your Charge HR nearby, click Sync Now.</li> <li>Source: Fitbit, Inc., Charge HR Manual (2017), p. 24, available at <a href="https://staticcs.fitbit.com/content/assets/help/manuals/manual charge hr en US.pdf">https://staticcs.fitbit.com/content/assets/help/manuals/manual charge hr en US.pdf</a>.</li> </ol> </li> </ol>

U.S. Patent No.	Fitbit, Inc. Accused Products
8,638,301	
	Tracking Exercise with Fitbit Charge HR
	Charge HR will automatically detect many exercises and record them in your exercise history using our SmartTrack™ feature. For more precision you can also tell your tracker when exercise starts and stops and see a workout summary right on your wrist. All workouts appear in your exercise history for deeper analysis and comparison.
	Using SmartTrack
	Our SmartTrack feature automatically recognizes and records select exercises to ensure you get credit for your most active moments of the day. When you sync your tracker after a SmartTrack-detected exercise, you can find several stats in your exercise history including duration, calories burned, impact on your day, and more.
	By default SmartTrack detects continuous movement at least 15 minutes in length. You can increase the minimum duration or disable SmartTrack for one or more exercise types.
	SmartTrack does not record more precise exercise stats. If you want to track a specific exercise with precise stats, you should use exercise mode on your Charge HR.
	For more information about customizing and using SmartTrack, see <a href="help.fitbit.com">help.fitbit.com</a> .
	Source: Fitbit, Inc., Charge HR Manual (2017), p. 24, available at <a href="https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf">https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf</a> .
	In another example, the Fitbit Charge HR displays and tracks the user's heart rate, steps, distance, calories burned, stairs climbed and active minutes. When the user uses Exercise Mode by using feature SmartTrack, the display changes and gives the user real-time states on your wrist, as illustrated below.



U.S. Patent	Fitbit, Inc. Accused Products
<b>No.</b> 8,638,301	
haptic effect based at	in part on the first data signal.
least in part on the first data signal; and	For example, the Accused Products provide a processor configured to determine a particular haptic feedback, e.g., vibration or tactile pulse pattern (i.e. haptic effect) based at least in part on the user's stats and steps taken (i.e. first data signal).
	The following pictures below show that the Accused Product contains haptic feedback and sends notifications to the user using the haptic feedback.
	Sensors and motors
	Your Charge HR uses a MEMS 3-axis accelerometer to measure your motion patterns and determine your steps taken, distance traveled, calories burned, and sleep quality. Charge HR also contains:
	<ul> <li>An altimeter, which measures floors climbed</li> <li>A vibration motor, which allows it to vibrate when alarms go off, when you reach a goal, and when you receive call notifications</li> <li>An optical heart rate tracker, which measures your beats per minute (BPM) at rest and when you are exercising</li> </ul>
	Source: Fitbit, Inc., Charge HR Manual (2017), p. 24, available at <a href="https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf">https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf</a> .

U.S. Patent	Fitbit, Inc. Accused Products
<b>No.</b> 8,638,301	
0,030,301	Setting a value for your daily goal
	You can set a specific value for your daily goal in the Fitbit app or on the fitbit.com dashboard. For example, instead of the default daily goal value of 10,000 steps per
	10
	day, you may want your Charge HR to vibrate and flash when you reach 15,000 steps per day. To change your goal value:
	<ol> <li>Log into your fitbit.com dashboard.</li> <li>Find the tile that corresponds to your goal.</li> <li>Click the gear icon in the lower left corner of the tile.</li> <li>Change your Daily Goal value and click Save.</li> <li>Sync your Charge HR to update your tracker with the new value you have</li> </ol>
	chosen.  a. Click the Fitbit Connect icon located near the date and time on your computer.  b. With your Charge HR nearby, click Sync Now.
	Source: Fitbit, Inc., Charge HR Manual (2017), p. 10-11, available at <a href="https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf">https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf</a> .
outputting the haptic	The Accused Products include a processor configured to output the haptic effect.
effect.	For example, the Accused Products include a processor configured to output the haptic feedback (i.e. haptic effect).
	The pictures below provide that the processor is configured to output the haptic feedback (i.e. haptic effect) for certain alarms, goals, notifications, and reminders, such as a daily activity goal.
	Tracking a daily activity goal
	Your Charge HR is designed to track your progress towards a goal that you define on your fitbit.com dashboard. A progress bar below your goal keeps you motivated throughout the day. When you reach your goal your Charge HR will vibrate and flash to celebrate.
	Source: Fitbit, Inc., Charge HR Manual (2017), p. 10, available at <a href="https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf">https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf</a>

U.S. Patent No.	Fitbit, Inc. Accused Products
8,638,301	
	Sensors and motors  Your Charge HR uses a MEMS 3-axis accelerometer to measure your motion patterns
	and determine your steps taken, distance traveled, calories burned, and sleep quality. Charge HR also contains:
	<ul> <li>An altimeter, which measures floors climbed</li> <li>A vibration motor, which allows it to vibrate when alarms go off, when you reach a goal, and when you receive call notifications</li> </ul>
	<ul> <li>An optical heart rate tracker, which measures your beats per minute (BPM) at rest and when you are exercising</li> </ul>
	Source: Fitbit, Inc., Charge HR Manual (2017), p. 24, available at <a href="https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf">https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf</a> .

#### Claim 28 Fitbit, Inc. Accused Products The Accused Products provide that the first sensor and the second sensor are each configured to The system of claim 27, detect one or more of: contact, pressure, acceleration, inclination, inertia, or location. wherein the first sensor For example, the Accused Products provide that the first sensor (i.e. 3-axis accelerometer) and and the the second sensor (i.e. tap gesture) are each configured to detect one or more of: contact, pressure, acceleration, inclination, inertia, or location. second sensor are The pictures below show that the Accused Product contains a tap gesture (i.e. contact pressure), each configured 3-axis accelerometer (i.e. acceleration), and an altimeter (i.e. inclination and inertia). to detect one or more of: PurePulse™ Heart Rate contact, pressure, 12:45 Get continuous, automatic, wrist-based heart rate & simplified heart rate zones acceleration, inclination, inertia, or location. Caller ID + Watch (2) SmartTrack™ Exercise Mode Record workouts to get real-time stats & Long Battery Life Lasts longer than competing trackers Auto Sleep + Alarms Monitor your sleep automatically & set a Wireless Syncing 1)) Sync stats wirelessly & automatically to Source: Fitbit, Inc., Charge HR (2017), available at https://www.fitbit.com/chargehr.

Claim 28	Fitbit, Inc. Accused Products
	Sensors and motors
	Your Charge HR uses a MEMS 3-axis accelerometer to measure your motion pattern and determine your steps taken, distance traveled, calories burned, and sleep quality Charge HR also contains:
	An altimeter, which measures floors climbed
	<ul> <li>A vibration motor, which allows it to vibrate when alarms go off, when you reach a goal, and when you receive call notifications</li> </ul>
	<ul> <li>An optical heart rate tracker, which measures your beats per minute (BPM) at rest and when you are exercising</li> </ul>
	Battery
	Charge HR contains a rechargeable lithium-polymer battery.
	Source: Fitbit, Inc., Charge HR Manual (2017), p. 24, available at <a href="https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf">https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf</a> .
	Tap Gesture: If you want your Charge HR to respond to taps, choose which stat you want to appear when you double tap your device.  Source: Fitbit, Inc., Charge HR Manual (2017), p. 17, available at
	https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf.

Claim 29	Fitbit, Inc. Accused Products
The system	The Accused Products provide the second sensor comprises a touch-screen.
of claim 27,	
wherein the	For example, the Accused Products provide the second sensor comprises a tap gesture.
second	
sensor	As shown below, the Accused Product contains a tap gesture (i.e. second sensor).
comprises a	
touch-	<ul> <li>Tap Gesture: If you want your Charge HR to respond to taps, choose which</li> </ul>
screen.	stat you want to appear when you double tap your device.
	Source: Fitbit, Inc., Charge HR Manual (2017), p. 17, available at
	https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_hr_en_US.pdf.

Claim 31	Fitbit, Inc. Accused Products
The system	The Accused Products provide the processor is further configured to transmit a second data
of claim 27,	signal to the network interface, and the network interface is further configured to transmit the
wherein the	second data signal to the second mobile device.
processor is	
further configured to transmit a second data signal to the network interface, and the network interface is further configured to transmit the second	For example, as the picture below shows in the red boxes, the Accused Product provides that the processor is further configured to transmit information corresponding to a summary of a user's tracked statistics and results, including daily activity goal results (i.e. second data signal) to the Bluetooth transceiver (i.e. network interface), and the Bluetooth transceiver (i.e. network interface) is further configured to transmit the information corresponding to a summary of a user's tracked statistics and results, including daily activity goal results to smart phone, such as an iPhone or Android smart phone (i.e. second mobile device). By way of example, as shown in the red boxes in the picture below, the Accused Product provides that the processor is further configured to transmit or sync the information corresponding to a summary of a user's tracked statistics and results, including daily activity goal results to the Bluetooth transceiver, and the Bluetooth transceiver is further configured to transmit the information corresponding to a summary of a user's tracked statistics and results, including daily activity goal results to the Fitbit dashboard on a user's smart phone, such as an iPhone or Android smart phone.
data signal	
to the	
second	
mobile	
device.	

#### Claim 31 Fitbit, Inc. Accused Products

#### Automatic tracking with Fitbit Charge HR

Your Charge HR has you covered day and night.

#### Tracking all-day stats

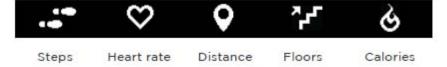
Your Charge HR automatically tracks the following all-day stats:

- Steps taken
- · Current heart rate
- Distance covered
- Calories burned
- Floors climbed

In addition to the stats displayed on your Charge HR, the following stats are also tracked but shown only on your fitbit.com dashboard or in the Fitbit app:

- Detailed heart rate history, including time spent in heart rate zones
- Active minutes
- Hours slept and quality of sleep

To scroll through your stats simply press the button on the side of your Charge HR. You'll see the time followed by an icon and stat in turn. If you have an alarm set, your display will also show the next alarm time.



When you sync your Charge HR, your all-day stats are uploaded to your fitbit.com dashboard.

Your Charge HR starts tracking your stats for the next day at midnight based on your time zone. Though your stats reset to zero at midnight, this does not delete the previous day's data; that data will be uploaded to fitbit.com the next time you sync your tracker.

You can adjust your time zone at www.fitbit.com/user/profile/edit.

*Source*: Fitbit, Inc., *Charge HR Manual* (2017), p. 8, *available at* https://staticcs.fitbit.com/content/assets/help/manuals/manual charge hr en US.pdf.

By way of another example, as the picture below shows in the red boxes, the Accused Product provides that the processor is further configured to transmit information corresponding to a summary of a user's tracked statistics and results, including daily activity goal results (i.e. second data signal) to the Bluetooth transceiver (i.e. network interface), and the Bluetooth transceiver (i.e. network interface) is further configured to transmit the information corresponding to a summary of a user's tracked statistics and results, including daily activity goal results to smart phone, such as an iPhone or Android smart phone (i.e. second mobile device). For instance, as shown in the red boxes in the picture below, the Accused Product provides that the processor is further configured to transmit or sync information corresponding to a summary of a user's tracked statistics and results, including daily activity goal results to the Bluetooth transceiver, and the Bluetooth transceiver is further configured to transmit the

#### Claim 31 Fitbit, Inc. Accused Products

information corresponding to a summary of a user's tracked statistics and results, including daily activity goal results to the Fitbit dashboard on a user's smart phone, such as an iPhone or Android smart phone.

### Automatic tracking with Fitbit Charge HR

Your Charge HR has you covered day and night.

#### Tracking all-day stats

Your Charge HR automatically tracks the following all-day stats:

- Steps taken
- · Current heart rate
- Distance covered
- Calories burned
- Floors climbed

In addition to the stats displayed on your Charge HR, the following stats are also tracked but shown only on your fitbit.com dashboard or in the Fitbit app:

- Detailed heart rate history, including time spent in heart rate zones
- Active minutes
- Hours slept and quality of sleep

To scroll through your stats simply press the button on the side of your Charge HR. You'll see the time followed by an icon and stat in turn. If you have an alarm set, your display will also show the next alarm time.



When you sync your Charge HR, your all-day stats are uploaded to your fitbit.com dashboard.

Your Charge HR starts tracking your stats for the next day at midnight based on your time zone. Though your stats reset to zero at midnight, this does not delete the previous day's data; that data will be uploaded to fitbit.com the next time you sync your tracker.

You can adjust your time zone at www.fitbit.com/user/profile/edit.

*Source*: Fitbit, Inc., *Charge HR Manual* (2017), p. 8, *available at* https://staticcs.fitbit.com/content/assets/help/manuals/manual\_charge\_hr\_en\_US.pdf.

By way of another example, as the picture below shows in the red boxes, the Accused Product provides that the processor is further configured to transmit information corresponding to a summary of a user's tracked statistics and results, including daily activity goal results (i.e. second data signal) to the Bluetooth transceiver (i.e. network interface), and the Bluetooth transceiver (i.e. network interface) is further configured to transmit the information corresponding to a summary of a user's tracked statistics and results, including daily activity goal results to smart phone, such as an iPhone or Android smart phone (i.e. second mobile

Claim 31	device). Accordingly, the Accused Product provides that the processor is further configured to transmit information corresponding to a summary of a user's tracked statistics and results, including daily activity goal results (i.e. second data signal) to the Bluetooth transceiver (i.e. network interface), and the Bluetooth transceiver (i.e. network interface) is further configured to transmit the information corresponding to a summary of a user's tracked statistics and results, including daily activity goal results data to smart phone, such as an iPhone or Android smart phone, by syncing or transferring the information corresponding to a summary of a user's tracked statistics and results, including daily activity goal results data collected from the tracker to the Fitbit dashboard.
	WHAT IS SYNCING?
	Syncing is the process that transfers the data your tracker collects to your Fitbit dashboard. The dashboard is where you can track your progress, see how you slept, set goals, log food and water, challenge friends, and much more. Your tracker uses Bluetooth Low Energy (BLE) technology to sync with mobile devices and certain computers. The instructions in How do I set up my tracker? explain how to make sure your Fitbit tracker can sync with the mobile device or computer you prefer.
	WHEN DOES MY TRACKER SYNC?
	If your tracker is paired to the Fitbit app on a mobile device, it syncs every time you open the app. It can also sync periodically throughout the day if you have All-Day sync turned on. If you sync your tracker with a computer and Fitbit Connect, it syncs automatically every 15 to 30 minutes assuming the tracker and computer are in proximity, and the dongle is plugged in, if applicable.
	You can also initiate a sync whenever you like if your tracker is nearby. If you're using an iOS or Android mobile device, you can sync your tracker from the Fitbit app dashboard by touching your tracker image at the top of the screen and pulling down. Choose a section to see syncing instructions.
	IOS DEVICES   V
	ANDROID DEVICES
	WINDOWS 10 MOBILE DEVICES AND COMPUTERS
	MAC OR WINDOWS 8.1 COMPUTERS
	Source: Fitbit, Inc., How do Fitbit devices sync their data? (2017), available at <a href="http://help.fitbit.com/articles/en_US/Help_article/1877?p=charge_2&amp;c=Topics%3AAndroid&amp;l=en_US&amp;fs=Search&amp;pn=1">http://help.fitbit.com/articles/en_US/Help_article/1877?p=charge_2&amp;c=Topics%3AAndroid&amp;l=en_US&amp;fs=Search&amp;pn=1</a> .