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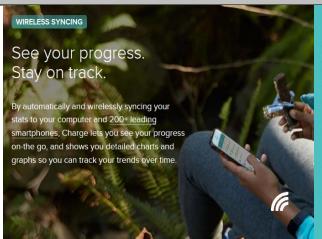
Immersion Corporation U.S. Patent No. 8,638,301

Infringement Contentions to Fitbit, Inc.

U.S.	Fitbit, Inc. Accused Products
Patent No.	
R,638,301 Claim 27. A system comprising:	The Fitbit Accused Products provide system of an interaction between a fitness tracker band and a smartphone. See https://www.allaboutcircuits.com/news/teardown-tuesday-fitbit-charge-fitness-tracker/ . For example, the Accused Products practices a system as a fitness tracker band synchronizing with a smartphone. All-Day Activity Track steps, distance, colories burned, floors climbed, active minutes, hourly activity & stationary time Watch + Display See daily stats, time of day & Exercise Mode on the OLED display Caller ID See call notifications on display with compatible mobile devices Long Battery Life Lasts longer than compating trackers with a battery life of 7-10 days* Auto Sleep + Alarms Montor your sleep automatically & set a silent alarm Wireless Syncing
	Sync stats wirelessly & automatically to leading smartphones and computers
	Source: Fitbit, Inc., Charge (2017), available at https://www.fitbit.com/charge .
	In particular, the Accused Product is configured to pair or sync with a smartphone (e.g. iPhone or Android) as shown in the pictures above and below.

U.S. Patent No.8,638,301

Fitbit, Inc. Accused Products



Syncing

Charge syncs automatically and wirelessly to tablets, computers and 200+ leading IOS, Android and Window smartphones using Bluetooth 4.0 wireless technology.

- . Syncing range: 20 feet
- Call notifications via Bluetooth 4.0
- Syncing to computers requires internet connection and USE port
- Syncing to mobile devices requires Bluetooth and internet connection.
- Syncs with Windows Vista and later, Mac OS X 10.6 and up iPhone 4S and later, iPad 3 gen, and later, and leading Android and Windows devices

Source: Fitbit, Inc., Charge Specs (2017), available at https://www.fitbit.com/charge.

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 such that the features are enabled.

For example, Fitbit provides a setup website to help and support the user to "Get the Fitbit App to Set Up Your Device" at https://www.fitbit.com/setup. 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, Fitbit 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. Fitbit, Inc. Accused Products Patent No. 8,638,301 Get the Fitbit App to Set Up Your Device **O** Charge → 3,027 colories be → Google Play Download on the App Store Download from Windows Store Don't have a mobile device available? DOWNLOAD FOR WINDOWS Mac Mac 10.5 Windows 10 PC Windows XP Source: Fitbit, Inc., "Get the Fitbit App to Set Up Your Device" (2017), available at https://www.fitbit.com/setup; see also https://www.fitbit.com/app. Fitbit also provides answers on its website to popular topics and questions that other users have had setting up their devices. Further, Fitbit provides a support community to educate users about certain features. (See Fitbit, Inc., "Get the skinny on your Fitbit device," http://help.fitbit.com/.) Fitbit provides web pages with answers to popular topics and questions that other users have had setting up their devices. Further, Fitbit provides a support community to educate users about certain features. In addition, users can request certain features or options to be implemented in the Fitbit's software and/or API such as on Fitbit's "Ideas Board" online forum, which Fitbit provides at https://community.fitbit.com/t5/Feature-Requests/idb-p/features. Fitbit also provides How-To Videos to help users, as illustrated in the screenshot shown below. (See, e.g., Fitbit Inc., "How-To Videos," https://www.fitbit.com/how-to ("Get started with your Fitbit products and find

and sweet how-to videos.").)

out how to make the most of features like sleep tools, exercise modes and more, with these short

U.S. Patent No. 8,638,301	Fitbit, Inc. Accused Products
0,030,301	How-To Videos Get started with your Filbit 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 Videos 6 VIDEOS FILBIT Flex 2 How-To
a processor configured to:	The Accused Product includes a processor. For example, the Accused Product includes STMicroelectronics STM32L151RD ARM cortex M3 core Microcontroller. Further, the Microcontroller is configured to perform various instructions as listed below. The <i>Teardown Tuesday: Fitbit Charge Fitness Tracker</i> and Charge Specs pictures show the components of the Accused Product containing a microcontroller (i.e. processor) and various types of sensors (e.g. accelerometer, altimeter). The microcontroller (i.e. processor), identified in the picture below, is configured to perform various instructions.
	Processor At the heart of this Fitbit is an ST Microelectronics STM32L151C6 microcontroller. This is a 32-bit microcontroller with an ARM cortex M3 core inside of it. Also in the Fitbit Charge, is a barometric pressure sensor that is used to measure the change in altitude for activities such as climbing stairs. The pressure sensor used in the Fitbit Charge is a TE Connectivity/Measurement Specialties MS5805. Source: EETech Media, LLC., All About Circuits, Teardown Tuesday: Fitbit Charge Fitness Tracker (2017), available at https://www.allaboutcircuits.com/news/teardown-tuesday-fitbit-charge-fitness-tracker/ .

first sensor

configured

501 miringe	ement Contentions	
U.S. Patent No. 8,638,301	Fitbit, Inc. Accused Products	
		Battery
	12:45 ^{ett}	The Fitbit Charge uses a small single cell Lithium-Ion Battery. This battery measures approximately 2.8x13x20mm and has a capacity of ~46mAh. It appears that this cell does not have the protection circuitry that is found on a lot of lithium cells. This cell carries the part number of "281320" that denotes the physical dimensions of the battery.
		The Fitbit Charge can relay information to the user through a small vibration motor that can be seen in the image above. Since the ST microcontroller can not drive this motor directly, there is a MOSFET that drives the vibration motor.
		To track activity, the Fitbit Charge uses two types of sensors, the first is an accelerometer. The accelerometer for the Fitbit Charge can be seen in the image with the 2-D barcode on the top of it. Based on images of the accelerometer found in other Fitbits, it appears that the accelerometer could be an ST LIS2DH.
	Source: EETech Media, LLC., All About Circuit Fitness Tracker https://www.allaboutcircuits.co	om/news/teardown-tuesday-fitbit-charge-
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		- Tang I and Education and beginning from Synchron Synchron Synchron Street Services for any Education Synchron Synchron Street Services for any Education Synchron S
	Source: Fitbit, Inc., Charge Specs (2017), availa	A TOTAL CONTROL OF THE PROPERTY OF THE PROPERT
receive a	The Accused Product includes a processor config	gured to receive a first sensor signal from a first
first sensor	sensor, the first sensor configured to detect a mo	
signal from		
a first	For example, the Accused Product includes a pro-	ocessor configured to receive sensor signals from
sensor, the	at least the 3-axis accelerometer sensor (i.e. first	
first somes	detect and treats a year's mayament on a yearisty of	

Accused Product (i.e. first mobile device).

detect and track a user's movement or a variety of statistics, including steps taken, on the

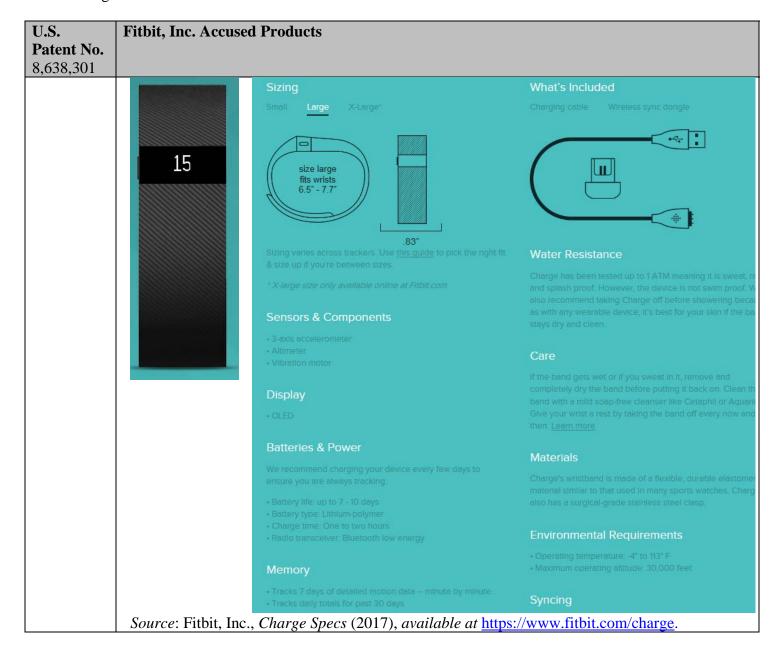
U.S. Patent No.	Fitbit, Inc. Accused Produc	ts	
8,638,301			
to detect a movement of a first mobile device;	accelerometer sensor, which	roduct may detect (i.e. the 3-ax	t Manual below show the The Charge Features picture further xis accelerometer) movement from a
device,	dser and it tracks the user's si	Sizing	What's Included
		Small Large X-Large*	Charging cable Wireless sync dongle
	15	size large fits wrists 6.5" - 7.7"	
		.83" Sizing varies across trackers. Use this quide to pick the right fit	Water Resistance
			Charge has been tested up to 1 ATM meaning it is sweat, re and splash proof. However, the device is not swim proof. W also recommend taking Charge off before showering becar
		Sensors & Components	as with any wearable device, it's best for your skin if the ba stays dry and clean.
		3-axis accelerometer Altimeter	
		Vibration motor	Care
		Display	If the band gets wet or if you sweat in it, remove and completely dry the band before putting it back on. Clean th
		• OLED	band with a mild soap-free cleanser like Cetaphil or Aquani Give your wrist a rest by taking the band off every now and then. <u>Learn more</u>
		Batteries & Power	Materials
			Charge's wristband is made of a flexible, durable elastomer
		Battery life: up to 7 - 10 days Battery type: Lithium-polymer	material similar to that used in many sports watches. Charg also has a surgical-grade stainless steel clasp.
			Environmental Requirements
		Memory	Operating temperature: -4" to 113" F Maximum operating altitude: 30,000 feet
		Tracks 7 days of detailed motion data – minute by minute. Tracks daily totals for past 30 days.	Syncing
	Source: Fitbit, Inc., Charge	Specs (2017), available at <u>htt</u> p	os://www.fitbit.com/charge.

U.S. Patent No.	Fitbit, Inc. Accused Products	
8,638,301		
	Sensors and motors	
	Your Charge uses a MEMS 3-axis accelerometer to measure your motion patterns and determine your steps taken, distance traveled, calories burned, and sleep qualit Charge 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 	
	Battery	
	Charge contains a rechargeable lithium-polymer battery.	
	Source: Fitbit Inc., Charge Product Manual (2017), p. 18, available at https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_en_US.pdf .	
	WIRELESS SYNCING Syncing	
	See your progress. Stay on track. Charge syncs automatically and wirelessly to tablets, computers and 200+ leading IOS, Android and Windows smartphones using Bluetooth 4.0 wireless technology.	
	By automatically and wirelessly syncing your Syncing range 20 feet	
	stats to your computer and 200+ leading * Call notifications via Bluetooth 4.0 * Syncing to computers requires internet connection and USE	
	on-the go, and shows you detailed charts and	
	graphs so you can track your trends over time. Syncing to mobile devices requires Bluetooth and internet connection	
	Syncs with Windows Vista and later, Mac OS X 10.6 and up, iPhone 4S and later, iPad 3 gen. and later, and leading Android and Windows devices	
	Source: Fitbit, Inc., Charge Specs (2017), available at https://www.fitbit.com/charge .	

U.S. Patent No. 8,638,301	Fitbit, Inc. Accused Products
	All-Day Activity Track steps, distance, calories burn floors climbed, active minutes, hou activity & stationary time Watch + Display See daily stats, time of day & Exert Mode on the OLED display Caller ID See call notifications on display with compatible mobile devices
	Wireless Syncing Sync stats wirelessly & automatically to leading smartphones and computers
	Source: Fitbit, Inc., Charge (2017), available at https://www.fitbit.com/charge .

U.S. Patent No. 8,638,301	Fitbit, Inc. Accused Products
	Tracking with Fitbit Charge
	Your Charge tracks:
	Steps taken Distance traveled
	Floors climbed
	Calories burned
	 Active minutes Hours slept
	Quality of sleep
	NOTE: Active minutes do not appear on the display; you can see them on your dashboard and in the Fitbit app.
	To scroll through your stats simply press the button on the side of your Charge. 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 હ
	Steps Distance Floors Calories
	Source: Fitbit Inc., Charge Product Manual (2017), p. 13, available at https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_en_US.pdf .

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 https://help.fitbit.com/articles/en_US/Help_article/1143 .
receive a second sensor signal from	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.
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 (i.e. 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 Specs and the Charge Product Manual. In the following Charge Product Manual picture, the picture describes the tap gesture interaction with the Accused Product, which makes sure that the tracker can communicate with the user.



U.S. Patent No. 8,638,301	Fitbit, Inc. Accused Products
	 Display Settings: Hide and show items to customize what you see on your Charge's OLED display. You can also drag items up and down to change the order in which they appear. Daily Goal Progress: Choose which goal you want your Charge to track for you throughout the day. You can edit the value of this goal from the Fitbit app or on the fitbit.com dashboard. Tap Gesture: If you want your Charge to respond to taps, choose whether you want the clock or your main goal displayed when you double tap your Charge. Clock Display: Choose from four different clock styles. Dominant Wrist: Choose which wrist you wear your Charge on to get the most accurate data readings. Sleep Tracking: Set the sensitivity of your sleep tracking by changing this setting. The Normal setting, which is the default, is appropriate for most people. If you are a sound sleeper, you can choose Sensitive to capture the smallest movements of your body. Silent Alarms: Add, edit and delete silent alarms on your Charge. NOTE: You must sync your Charge in order to apply any changed settings. Source: Fitbit, Inc., Charge Product Manual (2017), p. 13, available at https://staticcs.fitbit.com/content/assets/help/manuals/manual charge en US.pdf.
receive a first data signal from a network interface, the network interface configured to receive signals transmitted by a second mobile device;	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 mobile device. For example, the Accused Products include a processor configured to receive data signals (i.e. data signal) via a Bluetooth transceiver (i.e. 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 receives data via the Bluetooth transceiver when the user of the Fitbit application changes the daily step count goal from 10,000 steps per day to 20,000 steps per day. Collectively, the pictures below show and illustrate that the Accused Product contains a processor configured to receive data signals via Bluetooth transceiver, and the transceiver is configured to receive signals transmitted (i.e. synchronized) by another mobile device, such as a smartphone (i.e. iPhone or Android).

U.S.
Patent No.
8,638,301

Fitbit, Inc. Accused Products



Syncing

Charge syncs automatically and wirelessly to tablets, computers and 200+ leading IOS, Android and Windows smartphones using Bluetooth 4.0 wireless technology.

- Syncing range: 20 feet.
- Call notifications via Bluetooth 4.0
- Syncing to computers requires internet connection and USE port
- Syncing to mobile devices requires Bluetooth and internet connection
- Syncs with Windows Vista and later, Mac OS X 10.6 and up, iPhone 4S and later, iPad 3 gen, and later, and leading Android and Windows devices

Source: Fitbit, Inc., Charge (2017), https://www.fitbit.com/charge.



Processor

At the heart of this Fitbit is an ST Microelectronics STM32L151C6 microcontroller. This is a 32-bit microcontroller with an ARM cortex M3 core inside of it.

Also in the Fitbit Charge, is a barometric pressure sensor that is used to measure the change in altitude for activities such as climbing stairs. The pressure sensor used in the Fitbit Charge is a TE Connectivity/Measurement Specialties MS5805.

Source: EETech Media, LLC., All About Circuits *Teardown Tuesday: Fitbit Charge Fitness Tracker* (2017), available at https://www.allaboutcircuits.com/news/teardown-tuesday-fitbit-charge-fitness-tracker/.

Open the app and follow the instructions to create a Fitbit account and set up your Charge. You can set up and sync wirelessly if your computer has Bluetooth®, otherwise you'll need to use the wireless sync dongle that came in the box with your Fitbit Charge.

Source: Fitbit, Inc., *Charge Product Manual* (2017), p. 13, *available at* https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_en_US.pdf.

U.S. Patent No. 8,638,301	Fitbit, Inc. Accused Products
	Syncing your tracker data to your Fitbit account
	Once you've set up and started using Charge, 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. Fitbit Connect on a PC requires that you plug in your wireless sync dongle. You can force Fitbit Connect to sync at any time or it will happen automatically every 15 minutes if:
	 The tracker is within 15-20 feet of your computer. The computer is powered on, awake, and connected to the Internet.
	Source: Fitbit, Inc., Charge Product Manual (2017), p. 13, available at https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_en_US.pdf .

U.S. Patent No. 8,638,301	Fitbit, Inc. Accused Products
	Tracking with Fitbit Charge
	Your Charge tracks:
	 Steps taken Distance traveled Floors climbed Calories burned Active minutes Hours slept Quality of sleep
	NOTE: Active minutes do not appear on the display; you can see them on your dashboard and in the Fitbit app.
	To scroll through your stats simply press the button on the side of your Charge. 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.
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	Steps Distance Floors Calories
	Source: Fitbit, Inc., Charge Product Manual (2017), p. 13, available at https://staticcs.fitbit.com/content/assets/help/manuals/manual charge en US.pdf .
	Tracking goals
	Your Charge is designed to track your progress towards a main fitness goal that you define on your fitbit.com dashboard. The goal can be set for steps taken, distance

U.S. Patent No. 8,638,301	Fitbit, Inc. Accused Products
	traveled, calories burned, or floors climbed. A progress bar below your goal keeps you motivated throughout the day. When you reach your goal, Charge will vibrate and flash to celebrate.
	To choose the specific goal you want to track:
	 Log in to your fitbit.com dashboard. Click the gear icon in the top-right corner of the page. Click Settings. Find and edit the Daily Goal Progress setting. Sync your Charge to send the new goal to your tracker.
	Once you've chosen which goal you want to track, you can set a specific value for that goal on the fitbit.com dashboard page or using the Fitbit app for mobile. For example, instead of the default 10,000 steps per day, you may want your goal to be 15,000 per day. To change your goal value using your dashboard:
	 Log into your fitbit.com dashboard. Find the tile that corresponds to your goal. Click the gear icon in the lower left corner of the tile. Change your Daily Goal value. Sync your Charge to send the new goal value to your tracker. Source: Fitbit, Inc., Charge Product Manual (2017), p. 13, available at https://staticcs.fitbit.com/content/assets/help/manuals/manual charge en US.pdf.
	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. a 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, the processor in the Accused Product is 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.

Fitbit, Inc. Accused Products U.S. Patent No. 8,638,301 2 47,298 45,298 Nick 39,875 4 Molly 39,187 5 0 6 Ash 34,080 1 725 € 35:19.7 Today Run 8,793 steps Walk 2ff dals Source: Fitbit, Inc., Charge (2017), available at https://www.fitbit.com/charge The Fitbit app on the mobile device (e.g. Android or Apple smartphone) connects to the Accused Product via Bluetooth. Next, the Fitbit app transmits the daily activity goal to the Accused Product for the user as shown below.

technology.

U.S. Patent No. 8,638,301	Fitbit, Inc. Accused Products	
	Activity & Workouts	
	Find more insights on your performance and the	e motivation to keep moving.
	€ MobileRun®	· - '
	Enhance runs, walks and hikes by using the Fitbit app on your smartphone to track pace, time and distance. You can also control your music and use voice cues to stay in command. Learn more.	Section 140 avg bpm 9:41 AM Workout 7:35am on Wed, January 23 42:33 min 542 cais 140 avg bpm TIME IN HEART RATE ZONES
	Track Exercise	42 min 33 sec 540 cals
	Use your Fitbit tracker to record workouts or log them in the app, then see all your exercise stats, their impact on your overall day, and how your performance is improving.	4 min Peak 12 min Cardio 26 min Fat Burn
	Exercise Calendar	♥ HEART RATE
	Logged workouts will pop up in your exercise calendar	140 avg bpm
	so you can look back on what you've accomplished, and use data & trends to make progress toward your goal.	14Q 14Q 156
	lil Exercise Sharing	00:00 42min
	Use the Fitbit app to share a view or a selfie once you've reached the peak of your workout. Your pic and stats can be sent to friends and followers on any social channel, or through email and text.	Dunkhöberd Chellenges Friends Account
	Source: Fitbit, Inc., Fitbit Charge, App "Activity & Whittps://www.fitbit.com/app.	Vorkouts" (2017) available at
	Further, the Fitibit App on the mobile device, for example Accused Product. As shown below, the Fitbit App on data to the Accused Product, such as settings or configuration.	the mobile device automatically transfers

U.S. Patent No. 8,638,301	Fitbit, Inc. Accused Products
	Once you've chosen which goal you want to track, you can set a specific value for that goal on the fitbit.com dashboard page or using the Fitbit app for mobile. For example, instead of the default 10,000 steps per day, you may want your goal to be 15,000 per day. To change your goal value using your dashboard: 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. 5. Sync your Charge to send the new goal value to your tracker. Source: Fitbit, Inc., Charge Product Manual (2017), p. 13, available at https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_en_US.pdf .
determine a change in a display signal based at least in part on the first data signal and the second sensor signal;	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. For example, the Accused Product tracks the progress towards a daily goal as the data. In particular, the Accused Product uses its processor that is configured to determine the changes in the screens (i.e. display signal) based on 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 sensor signal) that sets up the a tracking exercise. The pictures below show that the Accused Product allows for the user to interact with the touchscreen and tracks a variety of user's stats. Further, the pictures provide how the user can navigate the exercise menu on the Accused Product, and as an example, the Accused Product may determine a change in the display screen based on the user's daily activity goal.

U.S. Patent No. 8,638,301	Fitbit, Inc. Accused Products
	Tracking with Fitbit Charge
	Your Charge tracks:
	 Steps taken Distance traveled Floors climbed Calories burned Active minutes Hours slept Quality of sleep
	NOTE: Active minutes do not appear on the display; you can see them on your dashboard and in the Fitbit app. To scroll through your stats simply press the button on the side of your Charge. 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.
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	Steps Distance Floors Calories
	Source: Fitbit, Inc., Charge Product Manual (2017), p. 13, available at https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_en_US.pdf
	Tracking goals
	Your Charge is designed to track your progress towards a main fitness goal that you define on your fitbit.com dashboard. The goal can be set for steps taken, distance

U.S.	Fitbit, Inc. Accused Products
Patent No. 8,638,301	
0,030,301	traveled, calories burned, or floors climbed. A progress bar below your goal keeps you motivated throughout the day. When you reach your goal, Charge will vibrate and flash to celebrate. To choose the specific goal you want to track:
	 Log in to your fitbit.com dashboard. Click the gear icon in the top-right corner of the page. Click Settings. Find and edit the Daily Goal Progress setting. Sync your Charge to send the new goal to your tracker. Once you've chosen which goal you want to track, you can set a specific value for that goal on the fitbit.com dashboard page or using the Fitbit app for mobile. For example, instead of the default 10,000 steps per day, you may want your goal to be 15,000 per day. To change your goal value using your dashboard: Log into your fitbit.com dashboard. Find the tile that corresponds to your goal. Click the gear icon in the lower left corner of the tile. Change your Daily Goal value.
	5. Sync your Charge to send the new goal value to your tracker. Source: Fitbit, Inc., Charge Product Manual (2017), p. 13, available at https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_en_US.pdf

U.S. Patent No.	Fitbit, Inc. Accused Products
8,638,301	Tracking eversise
	Tracking exercise
	As mentioned above, your Charge automatically tracks several stats throughout the day. Using the exercise mode feature, you can choose to track stats for a specific activity as well.
	For example, if you put your tracker in exercise mode and go for a run, you can view stats measured for that run, such as calories burned or steps taken. When you end exercise mode at the end of the run and sync your data, you'll see an entry for a "Workout" exercise on your dashboard. The entry provides a summary of the activity's stats as well as a minute-by-minute graph.
	Starting and using exercise mode
	To use exercise mode:
	 Press and hold the button until a stopwatch icon appears. The timer starts counting immediately and elapsed time is displayed. To view stats being tracked during the exercise, press the button to advance through the stats, which are displayed in the following order: elapsed time
	calories burned
	steps taken
	distance covered floors climbed
	time of day
	Source: Fitbit, Inc., Charge Product Manual (2017), p. 13, available at https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_en_US.pdf .
	In another example, the Accused Product 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 No. 8,638,301	Fitbit, Inc. Accused Products
	RECORD WORKOUTS Log workouts, see a monthly exercise calendar, & use MobileRun to track run stats and map routes Source: Fitbit, Inc., Charge (2017), available at https://www.fitbit.com/charge.
determine a haptic effect based at least in part on the first data signal; and	The Accused Products include a processor configured to determine a haptic effect based at least in part on the first data signal. 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, via a vibration motor. As an example, the pictures below show that the Accused Product may determine a haptic feedback based on the user's stat, such as the user meeting the 10,000 steps goal. Sensors and motors Your Charge uses a MEMS 3-axis accelerometer to measure your motion patterns and determine your steps taken, distance traveled, calories burned, and sleep quality. Charge 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 Source: Fitbit, Inc., Charge Product Manual (2017), p. 13, available at https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_en_US.pdf.

U.S. Patent No. 8,638,301	Fitbit, Inc. Accused Products
	Tracking goals
	Your Charge is designed to track your progress towards a main fitness goal that you define on your fitbit.com dashboard. The goal can be set for steps taken, distance
	traveled, calories burned, or floors climbed. A progress bar below your goal keeps you motivated throughout the day. When you reach your goal, Charge will vibrate and flash to celebrate.
	To choose the specific goal you want to track:
	 Log in to your fitbit.com dashboard. Click the gear icon in the top-right corner of the page. Click Settings.
	 Find and edit the Daily Goal Progress setting. Sync your Charge to send the new goal to your tracker.
	Once you've chosen which goal you want to track, you can set a specific value for that goal on the fitbit.com dashboard page or using the Fitbit app for mobile. For example, instead of the default 10,000 steps per day, you may want your goal to be 15,000 per day. To change your goal value using your dashboard:
	 Log into your fitbit.com dashboard. Find the tile that corresponds to your goal. Click the gear icon in the lower left corner of the tile. Change your Daily Goal value. Sync your Charge to send the new goal value to your tracker.
	Source: Fitbit, Inc., Charge Product Manual (2017), p. 13, available at https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_en_US.pdf.
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 Accused Product is configured to output the haptic feedback (i.e. haptic effect). As an example, the Accused Product vibrates with alarms, goals, and notifications, such as the user meeting the 10,000 steps goal.

U.S. Patent No. 8,638,301	Fitbit, Inc. Accused Products
	Sensors and motors
	Your Charge uses a MEMS 3-axis accelerometer to measure your motion patterns and determine your steps taken, distance traveled, calories burned, and sleep quality. Charge 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
	Source: Fitbit, Inc., Charge Product Manual (2017), p. 13, available at https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_en_US.pdf .
	Tracking goals
	Your Charge is designed to track your progress towards a main fitness goal that you define on your fitbit.com dashboard. The goal can be set for steps taken, distance
	traveled, calories burned, or floors climbed. A progress bar below your goal keeps you motivated throughout the day. When you reach your goal, Charge will vibrate and flash to celebrate.
	To choose the specific goal you want to track:
	 Log in to your fitbit.com dashboard. Click the gear icon in the top-right corner of the page. Click Settings.
	 Find and edit the Daily Goal Progress setting. Sync your Charge to send the new goal to your tracker.
	Once you've chosen which goal you want to track, you can set a specific value for that goal on the fitbit.com dashboard page or using the Fitbit app for mobile. For example, instead of the default 10,000 steps per day, you may want your goal to be 15,000 per day. To change your goal value using your dashboard:
	 Log into your fitbit.com dashboard. Find the tile that corresponds to your goal. Click the gear icon in the lower left corner of the tile. Change your Daily Goal value. Sync your Charge to send the new goal value to your tracker.
	Source: Fitbit, Inc., Charge Product Manual (2017), p. 13, available at https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_en_US.pdf .

Claim 28 The system of claim 27, wherein the first sensor and the second sensor are each configured to detect one or more of: contact, pressure, acceleration, inclination. inertia, or

location.

Fitbit, Inc. Accused Products

The Accused Products provide that the first sensor and the second sensor are each configured to detect one or more of: contact, pressure, acceleration, inclination, inertia, or location.

For example, the Accused Products provide that the first sensor (i.e. 3-axis accelerometer) and the second sensor (i.e. tap gesture) are each configured to detect one or more of: contact, pressure, acceleration, inclination, inertia, or location.

The pictures below show that the Accused Product contains a tap gesture (i.e. contact pressure), 3-axis accelerometer (i.e. acceleration), and an altimeter (i.e. inclination and inertia).





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

Sensors and motors

Your Charge uses a MEMS 3-axis accelerometer to measure your motion patterns and determine your steps taken, distance traveled, calories burned, and sleep qualit Charge 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

Battery

Charge contains a rechargeable lithium-polymer battery.

Claim 28	Fitbit, Inc. Accused Products
	Settings allow you to change:
	 Display Settings: Hide and show items to customize what you see on your Charge's OLED display. You can also drag items up and down to change the order in which they appear.
	 Daily Goal Progress: Choose which goal you want your Charge to track for you throughout the day. You can edit the value of this goal from the Fitbit app or on the fitbit.com dashboard.
	Tap Gesture: If you want your Charge to respond to taps, choose whether you want the clock or your main goal displayed when you double tap your Charge.
	Clock Display: Choose from four different clock styles.
	 Dominant Wrist: Choose which wrist you wear your Charge on to get the most accurate data readings.
	 Sleep Tracking: Set the sensitivity of your sleep tracking by changing this setting. The Normal setting, which is the default, is appropriate for most people. If you are a sound sleeper, you can choose Sensitive to capture the smallest movements of your body.
	Silent Alarms: Add, edit and delete silent alarms on your Charge.
	NOTE: You must sync your Charge in order to apply any changed settings.
	Source: Fitbit, Inc., Charge Product Manual (2017), p. 13, available at https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_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 (i.e.
second	touchscreen).
sensor	As also and below the Assessed Durchest contains a temperature (i.e. according to
comprises a touch-	As shown below, the Accused Product contains a tap gesture (i.e. second sensor).
screen.	
screen.	Settings allow you to change:
	 Display Settings: Hide and show items to customize what you see on your Charge's OLED display. You can also drag items up and down to change the order in which they appear. Daily Goal Progress: Choose which goal you want your Charge to track for you throughout the day. You can edit the value of this goal from the Fitbit app or on the fitbit.com dashboard. Tap Gesture: If you want your Charge to respond to taps, choose whether you want the clock or your main goal displayed when you double tap your Charge. Clock Display: Choose from four different clock styles. Dominant Wrist: Choose which wrist you wear your Charge on to get the most
	 Sleep Tracking: Set the sensitivity of your sleep tracking by changing this setting. The Normal setting, which is the default, is appropriate for most people. If you are a sound sleeper, you can choose Sensitive to capture the smallest movements of your body. Silent Alarms: Add, edit and delete silent alarms on your Charge.
	NOTE: You must sync your Charge in order to apply any changed settings. Source: Fitbit, Inc., Charge Product Manual (2017), p. 13, available at https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_en_US.pdf .

Claim 31 Fitbit, Inc. Accused Products

The system of claim 27, wherein the 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 data signal to the second mobile device.

The Accused Products provide the 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 data signal to the second mobile device.

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 smartphone, such as an iPhone or Android smartphone (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 smartphone, such as an iPhone or Android smartphone.

Tracking with Fitbit Charge

Your Charge tracks:

- · Steps taken
- Distance traveled
- Floors climbed
- Calories burned
- Active minutes
- Hours slept
- · Quality of sleep

NOTE: Active minutes do not appear on the display; you can see them on your dashboard and in the Fitbit app.

To scroll through your stats simply press the button on the side of your Charge. 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.



Source: Fitbit, Inc., Charge Product Manual (2017), p. 9, available at

https://staticcs.fitbit.com/content/assets/help/manuals/manual charge 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 smartphone, such as an iPhone or Android smartphone (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 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 smartphone, such as an iPhone or

traveled, calories burned, or floors climbed. A progress bar below your goal keeps you motivated throughout the day. When you reach your goal, Charge will vibrate and flash to celebrate.

To choose the specific goal you want to track:

- 1. Log in to your fitbit.com dashboard.
- 2. Click the gear icon in the top-right corner of the page.
- 3. Click Settings.

Android smartphone.

- 4. Find and edit the Daily Goal Progress setting.
- 5. Sync your Charge to send the new goal to your tracker.

Once you've chosen which goal you want to track, you can set a specific value for that goal on the fitbit.com dashboard page or using the Fitbit app for mobile. For example, instead of the default 10,000 steps per day, you may want your goal to be 15,000 per day. To change your goal value using your dashboard:

- 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.
- 5. Sync your Charge to send the new goal value to your tracker.

Source: Fitbit, Inc., *Charge Product Manual* (2017), p. 9, *available at* https://staticcs.fitbit.com/content/assets/help/manuals/manual_charge_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 smartphone, such as an iPhone or Android smartphone (i.e. second mobile 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,

Claim 31 Fitbit, Inc. Accused Products 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 smartphone, such as an iPhone or Android smartphone, 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 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 http://help.fitbit.com/articles/en US/Help article/1877?p=charge 2&c=Topics%3AAndroid&l =en_US&fs=Search&pn=1.