Welcome to the 1st

Fitbit developers Melbourne

meetup

#made4fitbit

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@fharper

@fitbitdev

Fitbit SDK & Web API Overview

#made4fitbit

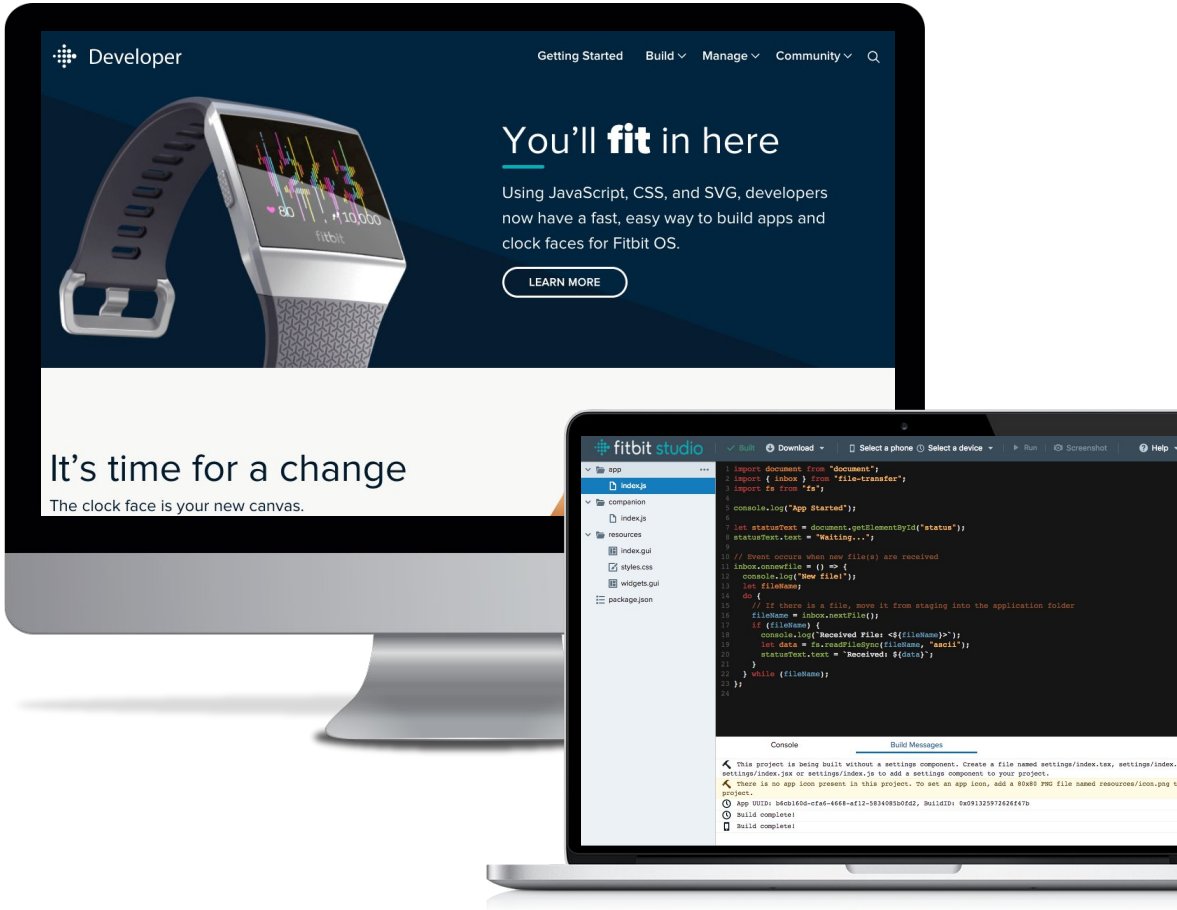
Fitbit OS SDK

NOV 23
1258
96 BPM
fitbit

NOV 28
12:58
fitbit

Developer Platform

- Standards based SDK with JavaScript, SVG & CSS
- Easily create apps from anywhere with Fitbit Studio
- Simulator available on macOS & Windows



SVG

```
<svg>
    <rect x="0" y="0" width="116" height="100%" fill="blue" />
    <rect x="116" y="0" width="116" height="100%" fill="white" />
    <rect x="232" y="0" width="116" height="100%" fill="red" />
</svg>
```

UI components

Tumbler, Checkbox Tile List, Combo buttons...

CSS

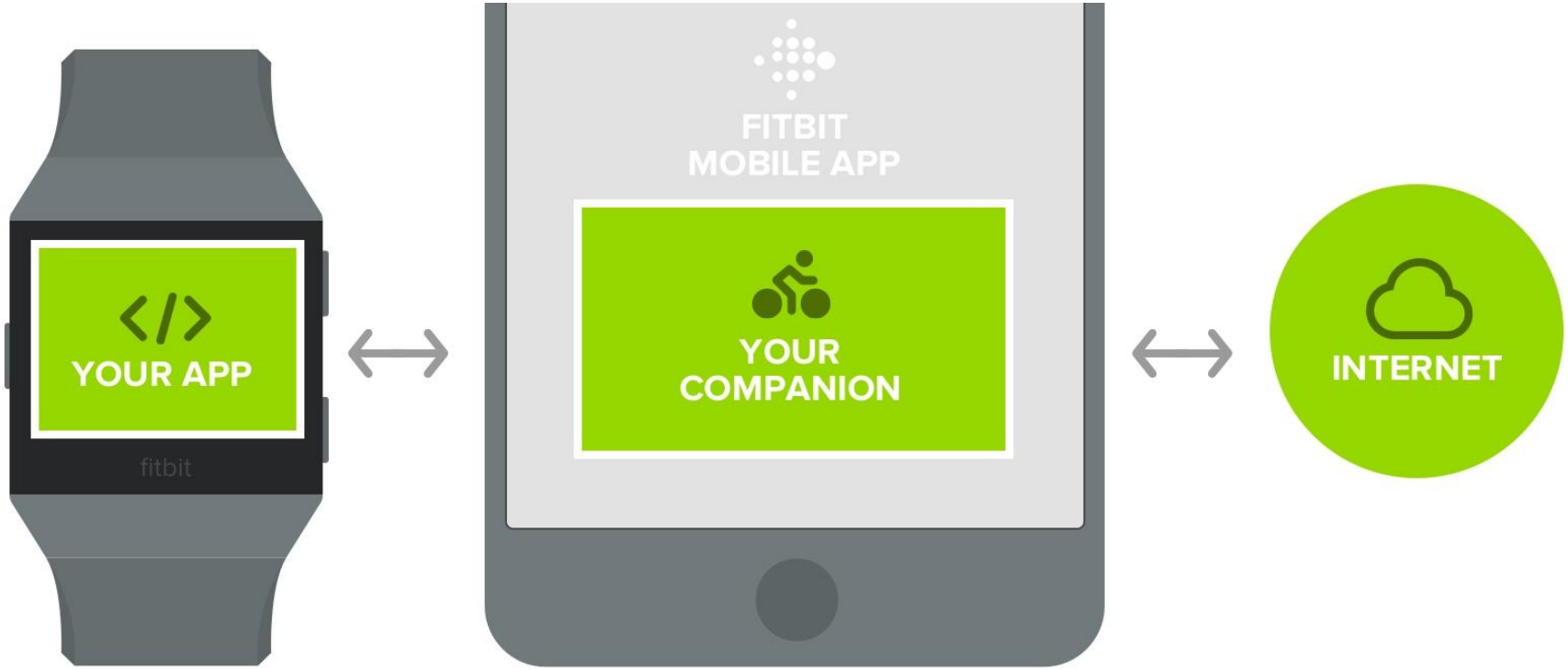
```
.screen {
    width: 100%;
    height: 100%;
    viewport-fill: lightblue;
}
.container {
    width: 60%;
    height: 60%;
    x: 20%;
    y: 20%;
}
```

```
.inner {
    width: 100%;
    height: 100%;
    x: 0;
    y: 0;
    fill: red;
}
```

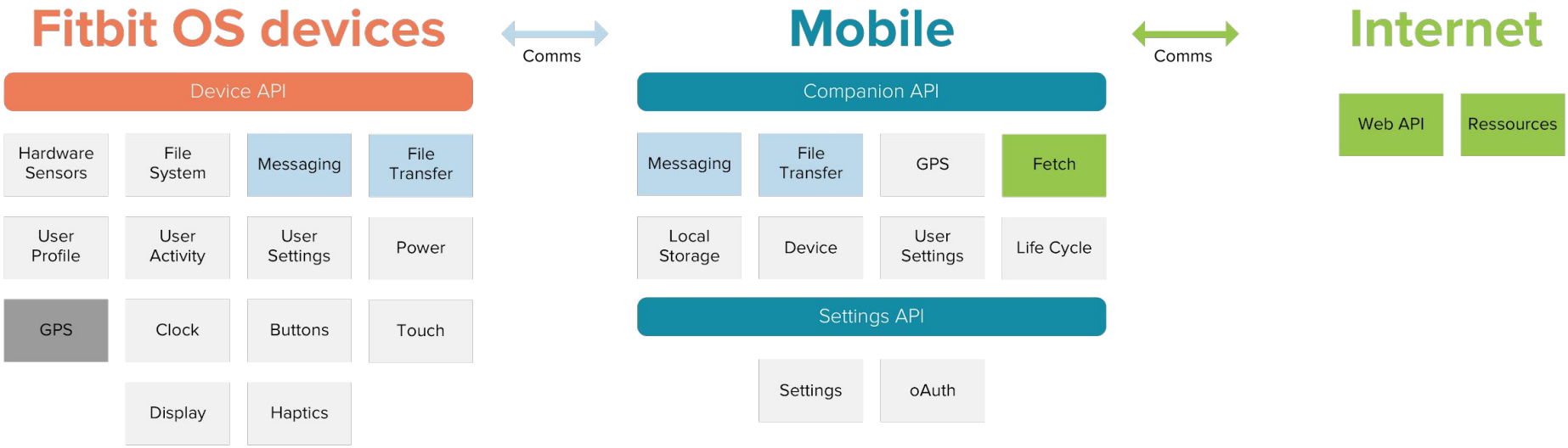
JavaScript

```
import document from "document";
var demo = document.getElementById("demo");
demo.text = "Demo Text";
```

Platform Architecture

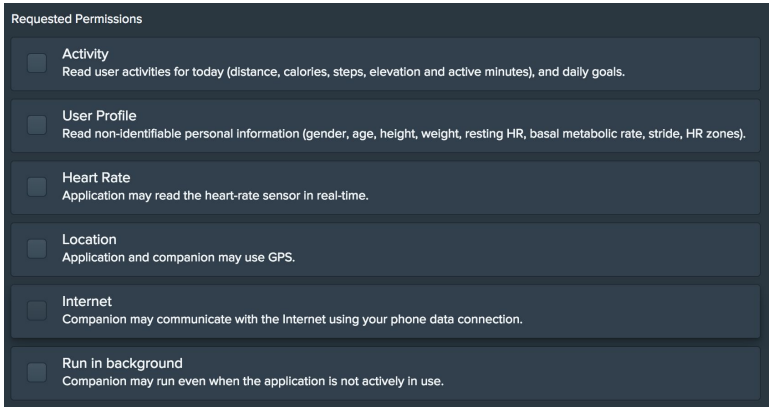


Platform Architecture



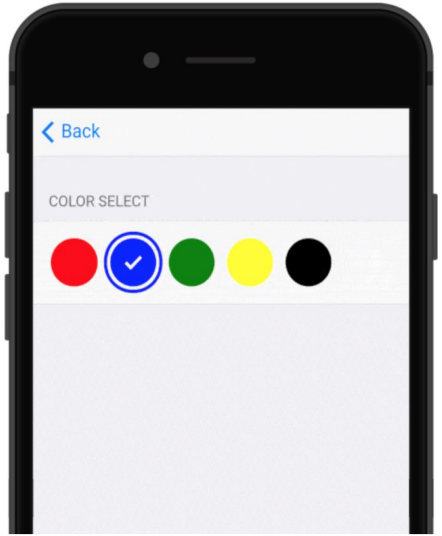
Permissions

- Developers request permissions
- Users accept requests on install



Settings

- Uses React JSX
- Make clock faces and apps configurable
- Prebuilt components for easy setup
- Persist data in settingsStorage
- Simple OAuth



Multiple Devices Resource Files

```
//Resources like CSS, images or GUI files
/resources/filename~SCREEN-RESOLUTION.ext

//Specific
/resources/styles~300x300.css
/resources/styles~348x250.css

//Fallback
/resources/styles.css
```

Multiple Devices

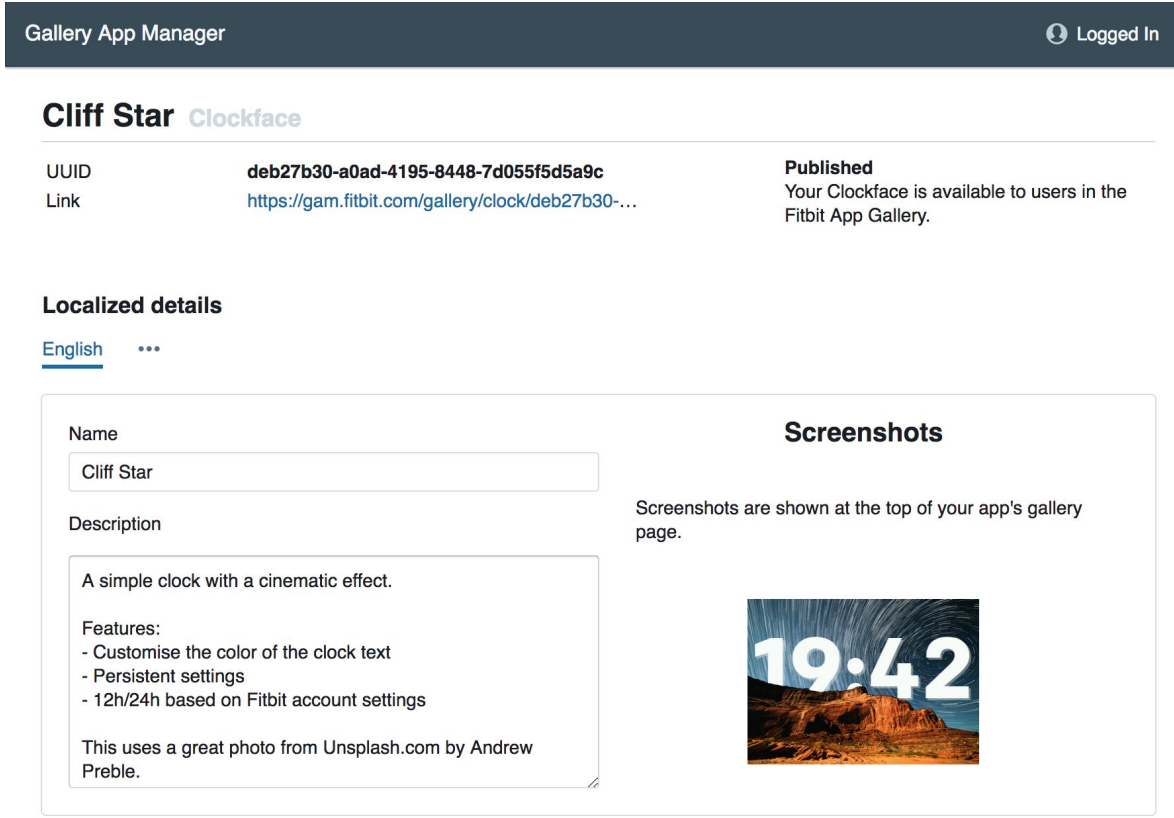
```
//Device API
import { me as device } from "device";

//Companion API
import { device } from "peer";

//Backward compatibility
if (!device.screen) device.screen = { width: 348, height: 250 };
```

Gallery App Manager (GAM)

- Our “App Store”
- Public & private apps
- Review process for public apps



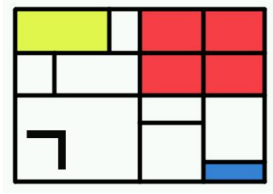
build a clock face

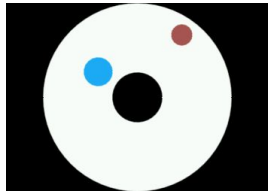
demo

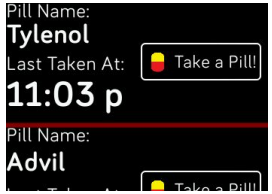
Clock face Development Station

SU 1 3 0 8
1 0 5 3 4 3
0 1 3 7 5 1

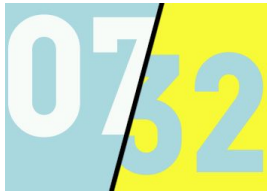
110
AVG BG
34
UNITS
130
CARBS
12 %HIGH
9 %LOW
57 %BAS
43 %BOL
2,345
CALORIES
FEB 21
5:47



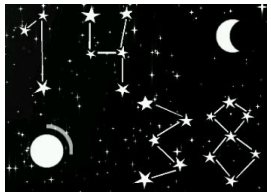



Pill Name:
Tylenol
Last Taken At:
Take a Pill!
11:03 p
Pill Name:
Advil

05:32:48
13 DEC
RHR 68
AT 105
ZONE
RECOVER
78


07
32

SMART WATCH
ACTIVITY STATS
MO 28
12:2448
LIGHT
EXERCISE SHORTCUTS



12:40 pm 22
Sunday, December 17
4,489
22 mins

1
1
1
0
0
0

3
6

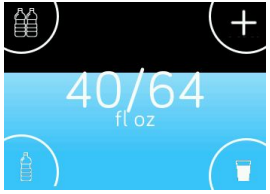
6,544
2,626
6
8
86
13

06:56
HAPPY
HOLIDAYS!

6,973 Steps
43°F Rain
08:59 pm
SU MO TU WE TH FR SA
December 16 2017

8
16
64
256
2
2
8
16
4
2
8
09:53
HIGH
5,936
1,712
RESET

10:51
Connected
26.1 km/h
14.1 km/h
543 m


40/64
fl oz

Thu 16 Nov
5:19
PM
17°

TUE
08:30
19 DEC
57%

16:18
322

November 2017
SU MO TU WE TH FR SA
1 2 3 4
5 6 7 8 9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30

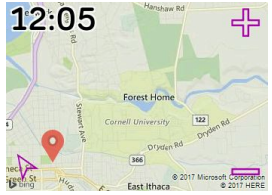
Design.
Create.
Save.
Share.
your own watch face with the tip of your finger!

4 x 25 Kick
@ 0:50
0:27
116 rep 1/4

DATE MONTH YEAR
18 Nov 2017
BATT
100%
HOUR MIN SEC
02:33 13
DAY
Sat
Goodmayes
Drizzle 8°C

WEDNESDAY
22
ALMOSTX TWENTY-FIVE
TEN I SQUARTERSAHALF
PAST I TORONETWOFOUR
THREEF I VES I XYSEVEN
ELEVENTENSNINE I GHT
TWELVESNOONO 'CLOCK
DECEMBER 20 – 2987

100%
05:52 P
Sat, 25 Nov 2017
London
Cloudy 5°C
Saturday - beautiful day!!


12:05
Forest Home
Cornell University
East Ithaca

9598
20:34
Thu 15
92

FRI DEC 22

Fitbit Web API

REST APIs

- Activity
- Body & Weight
- Devices
- Food Logging
- Friends
- Heart Rate
- Sleep
- Subscriptions
- User

JSON


```
{
    "Activities":[
        {
            "activityId":51007,
            "activityParentId":90019,
            "Calories":230,
            "Description":"7mph",
            "Distance":2.04,
            "Duration":1097053,
            "hasStartTime":true,
            "isFavorite":true,
            ...
```

did I sleep enough?

demo

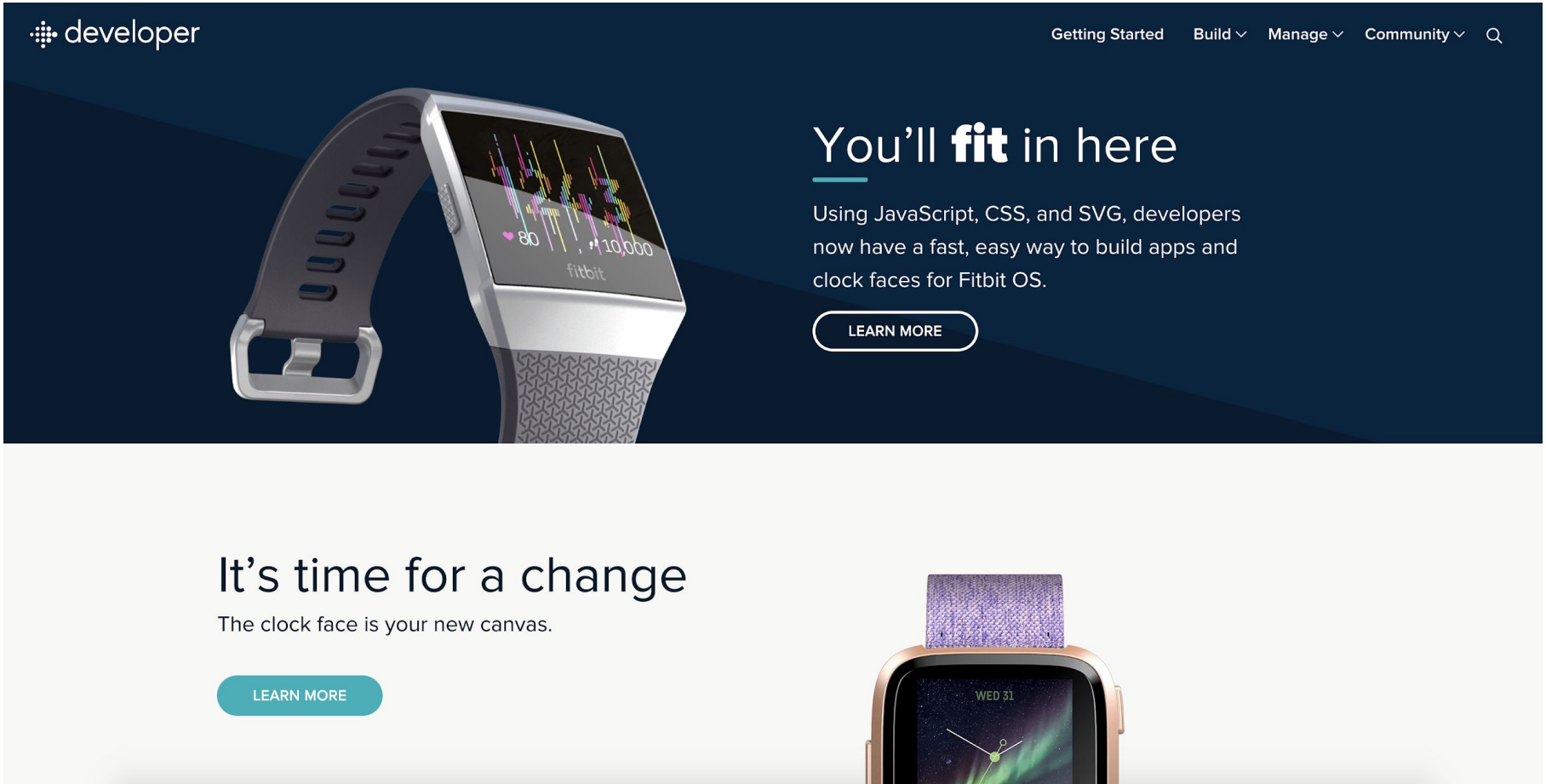
Next steps

be part of the community

1. Join the Discord community, follow us on Twitter...
2. Create a free Fitbit account
3. Use a Fitbit OS device, or use the simulator
4. Create local apps and clock faces
5. Publish your masterpiece in GAM
6. Share your hard work on Twitter using #made4fitbit

be a local ambassador

dev.fitbit.com



Have fun!

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outofcomfortzone.net