



FibriCheck®

# FibriCheck as a Service (FaaS) Solution brief

Power your application with our PPG technology for heart rhythm monitoring

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Seamlessly implement FibriCheck's regulated PPG technology for heart rate and heart rhythm monitoring with our SDK or enhance your patient care by integrating FibriCheck data via our API.

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# Introducing FibriCheck

Our mission is to transform the way cardiac care is delivered. In this respect, we have developed a device-independent, regulated (CE/FDA/TGA) digital heart rhythm monitor that is revolutionizing the industry with its advanced capabilities. Technically, FibriCheck combines a mobile application (or wearable) with an online workflow engine and state-of-the-art machine learning to acquire, process, and analyze photoplethysmography (PPG) waveforms. The PPG waveforms are monitored to determine if and which cardiac arrhythmias are present. The FibriCheck solution has been utilized by more than a million users worldwide and has obtained a broad range of scientific trust and credibility. FibriCheck is an end-to-end solution offering the ability to service end-users directly while enabling remote patient monitoring through connecting with physicians and offering dashboard and reporting functionalities.



## What sets FibriCheck apart?

**Expert in PPG arrhythmia analysis:** FibriCheck is highly focused on analyzing PPG signals in the arrhythmia domain; we excel at determining heart rate (during various conditions), heart rate variability, and arrhythmia classification with performance numbers in the +98% range, and a highly robust solution with less than 7% data rejection. This is based on a decade of research and development and real-world experience.

**Device agnostic:** FibriCheck's platform is a fully regulatory-compliant, AI-powered, optical-based, 100% software solution. It enables anyone to measure a wide range of biomarkers related to heart rate and heart rhythm using their own smartphone, tablet, or wearable device.

**Robust, clinically proven technology:** Robust, patented technology with a data quality equivalent to single lead ECG. Proven in over 50 clinical studies and used by more than 1 million people. Read more about our clinical foundation here: <https://academy.fibrichck.com/>

## FibriCheck-as-a-Service?

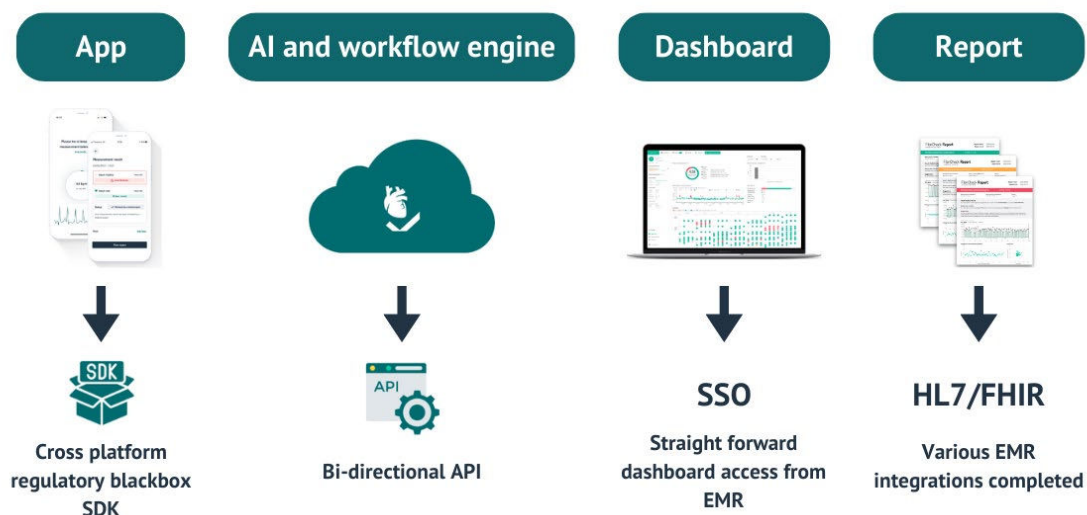
Through our SDK and API solutions, FibriCheck's regulated and patented PPG technology can be integrated into other (non-regulated) applications, implying that no time or resources need to be spent on developing own algorithms, performing clinical studies, developing (and maintaining) medical software and receiving regulatory approvals. In essence, this means that our medical heart rhythm assessments can be offered through other solution providers to their users without the regulatory burden.



# What does the FibriCheck ecosystem look like?

The FibriCheck technology and ecosystem are built on the most stringent regulatory and cybersecurity requirements. Our solution enables geographical coverage through a broad range of availability zones to support global clinical requirements. Our product consists of the following components:

1. **The FibriCheck Mobile Application** is a ready-to-use FibriCheck branded mobile application available through the Apple App Store and Google Play Store. The mobile app of FibriCheck is powered by the **FibriCheck SDK**, a PPG waveform collector module that third parties can seamlessly integrate into their own application. The SDK is also part of the FibriCheck Mobile Application and communicates with the FibriCheck AI Platform. The FibriCheck SDK can be used with smartphone cameras, or it can be expanded to integrate with wearable solutions.
2. **The FibriCheck AI Module** analyzes the standardized data collected by the FibriCheck SDK to identify irregular heart rhythms. Algorithm outputs are accessible in a report format by both the patient (through the SDK or in the FibriCheck Mobile Application) and the Health Care Provider (through the web application).
3. **The FibriCheck Web Application** is an online visualization and management tool for healthcare professionals to access FibriCheck data. The web application (or specific data) can be integrated via web links and single sign-on functionality.
4. **The FibriCheck report** is an aggregation of FibriCheck data that is shared in a PDF and can be integrated into various solutions through HL7 and FHIR.

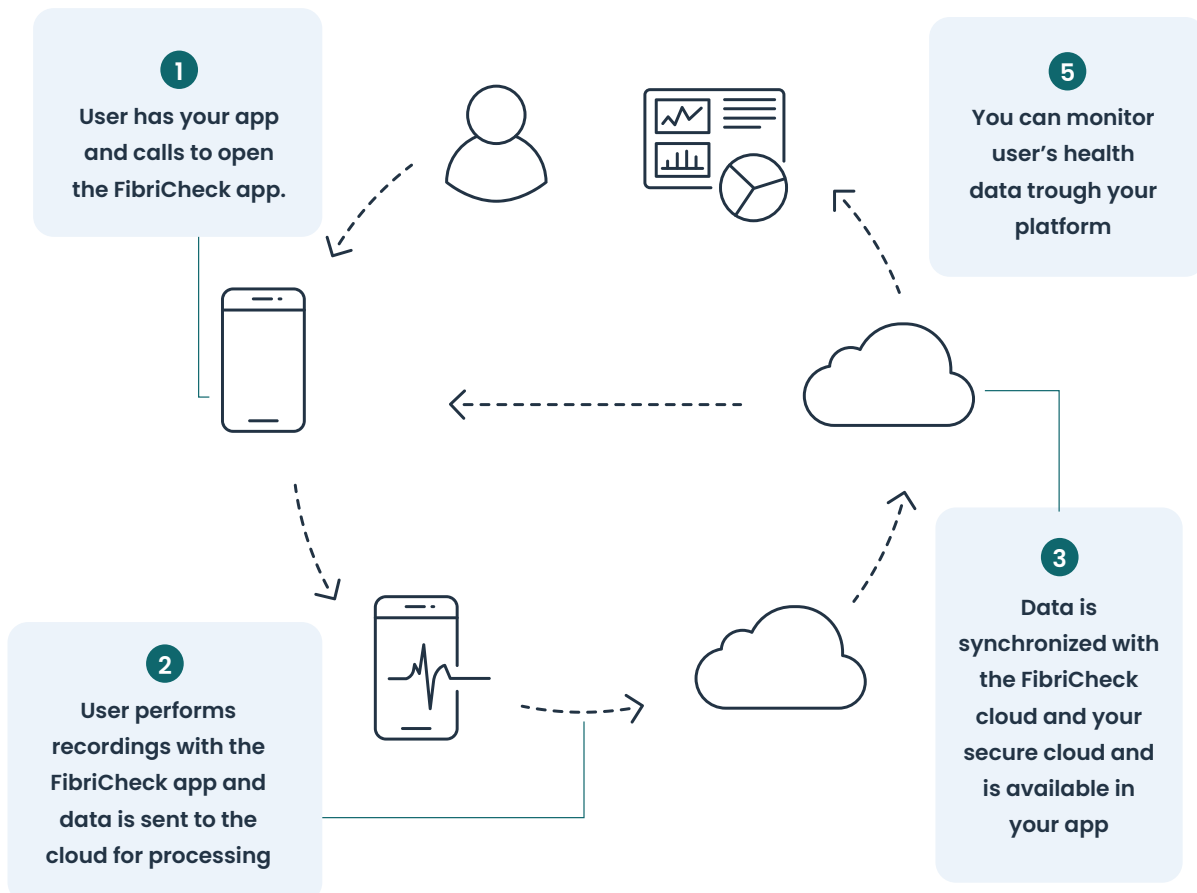


# How to integrate with FibriCheck?

## 1. App-to-app Integration

**The app-to-app integration** is the lowest form of integration. It enables application providers (i.e., remote patient monitoring solutions, telehealth providers, symptom trackers,...) to deep-link their application to the FibriCheck application. Depending on the level of integration, the user accounts can be connected via unique hashes and/or Oauth 2.0 bridges. This enables the user to effortlessly perform heart rate/heart rhythm measurements. At the same time, it allows the third-party provider to extract the relevant data via our API to integrate into their system and display/manage the data. The API interaction enables individual measurement data, report data, and weblinks to the FibriCheck dashboard.

Interested in demoing FibriCheck to a prospect or developing a proof-of-concept/demonstrator?  
Request a demo account here: [integrations@fibrichck.com](mailto:integrations@fibrichck.com)



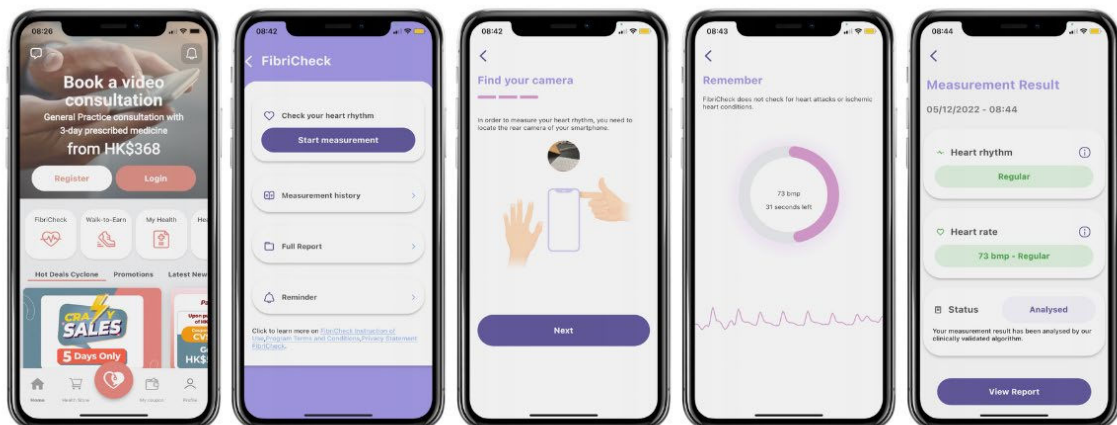
## 2. SDK/API Integration

The **SDK/API integration** is the crown jewel of integration options. It provides a solution where the FibriCheck SDK is integrated into your product and branded accordingly. The SDK enables different levels of data management but requires the user to accept the terms of the FibriCheck product. This guarantees that the regulatory compliance and the security standard provided by FibriCheck are upheld, and you can isolate our solution from your solution.

The FibriCheck SDK contains different components that control the camera of the smartphone to guarantee a high-quality PPG measurement is collected and sent to the FibriCheck cloud. The SDK is available in native languages, react native and flutter, with more options available upon request. The integration effort for an SDK is more extensive than an app-to-app integration but provides a seamless interface to the user. Via the SDK and/or the API, measurement results and reports can be obtained and shown to the user and managed in your solution.

### Use Case of SDK Integration

The integration of FibriCheck and the DrGo product in Hong Kong ([press release](#)) was a successful case where tens of thousands of DrGo users were provided with digital heart rhythm diagnostics and then connected with a telehealth physician to follow-up. The regulatory framework of FibriCheck provided a safe environment to launch the product effortlessly. The efficient integration was completed within four weeks and, in the meanwhile, successfully integrated into the public healthcare system of Hong Kong.



Interested in gaining access to our developer documentation and getting a demo?  
Contact us here: [integrations@fibrichk.com](mailto:integrations@fibrichk.com)

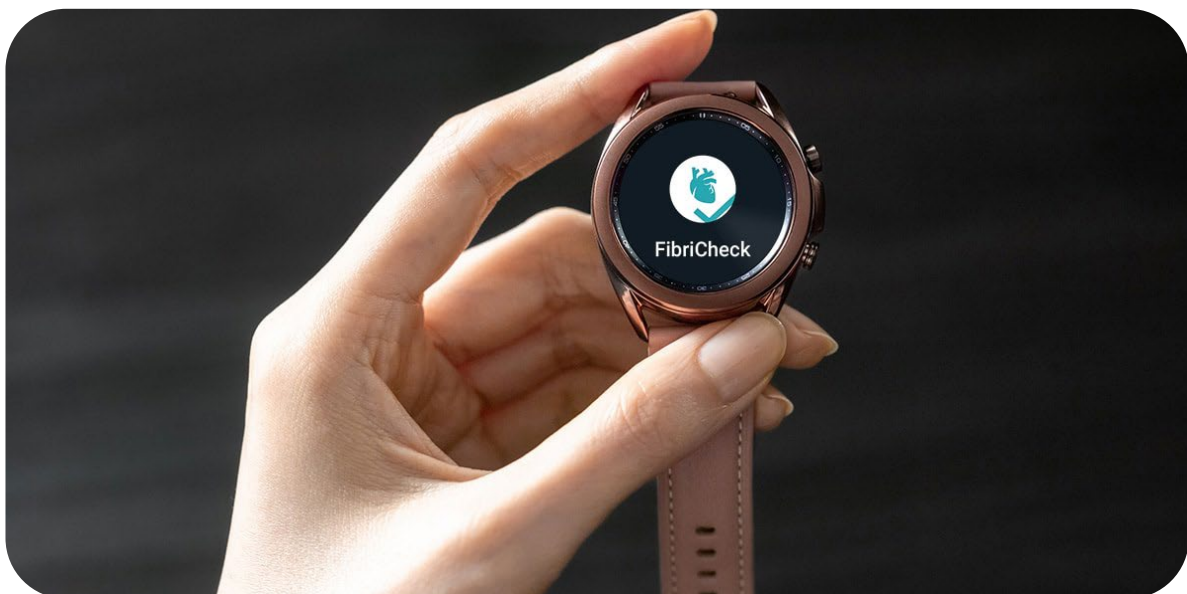
### 3. Wearable Integration

The FibriCheck solution is a device-agnostic solution, enabling the processing and analysis of PPG readings originating from different devices, including wearables. Nearly all wearable devices have a PPG sensor, enabling straightforward and regulated (semi-) continuous arrhythmia monitoring. Using the FibriCheck approach, our algorithm processes 60 seconds of data and provides a result after each minute. Depending on the duty cycle of the wearable (ranging from continuous to every x minutes), the FibriCheck solution provides a high quality and granular arrhythmia analysis, just as we provide on smartphones.

Depending on the type of wearable device, this requires an integration via our smartphone SDK or in some cases, via our API.

#### Use Case of Wearable Integration

FibriCheck has been integrated into different wearables. Amidst the growing uptake of digital and mobile health solutions and against the backdrop of significant growth in consumer wearables, FibriCheck collaborated with Samsung to develop a smartwatch app. This app was fully compatible with the new Samsung Galaxy Watch3 and Galaxy Watch Active2 and transformed them into fully certified and approved medical devices. FibriCheck was selected by Samsung on the strength of its regulatory portfolio, having obtained approval in the US, Australia and Europe. As a result of the agreement, Samsung users had access to FibriCheck's solution via the convenience of a consumer wearable device. This integration not only adds value to users but also showcases FibriCheck's ability to help manufacturers compete by offering innovative solutions.



Interested to learn if FibriCheck algorithms are compatible with your PPG data?  
Submit a parsing data request via [integrations@fibrichck.com](mailto:integrations@fibrichck.com)



# Clinical Validation

FibriCheck's technology is created together with cardiologists and is backed by 50+ peer-reviewed publications. Read more about it on our FibriCheck Academy at <https://academy.fibrichck.com/>

# Regulatory Considerations

FibriCheck has obtained relevant approvals for arrhythmia detection in Australia, Europe, the United Kingdom, Saudi Arabia, Singapore, and UAE. FibriCheck is continuously expanding its approvals and can discuss the requirements inherent to your region/country if your country is not listed here.

Understanding the product is critical for the flexibility and speed of the integration. The FibriCheck software is intended to achieve the specific medical purpose of detecting cardiac arrhythmias and meets the definition of a medical device. The software of the manufacturer does not typically have a specific medical purpose. It is not intended to be used to enable the FibriCheck software, and it is not subject to regulation for this reason. These responsibilities must be indicated clearly to the end user when enabling the FibriCheck software. FibriCheck supports implementation by providing a client package to gain speed, and this package will contain instructions and relevant medical device certifications to demonstrate compliance.

# Contact us

Do you have a special integration request? Get in contact with our team to build a custom solution that fits your needs and the needs of your patients or end-users. Together we can transform cardiac care and bring accessible heart rate, rhythm detection, and monitoring to more people worldwide.

Contact our team to book a consultation  
via [integrations@fibrichck.com](mailto:integrations@fibrichck.com)

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