

Firmware Update API Documentation

Version: 1.0

Category: Wearable Devices

Base URL: <https://api.example.com/v1/firmware>

Overview

This API allows developers to automatically check for, download, and deploy firmware updates to wearable devices. Use these endpoints to integrate firmware maintenance into device companion apps or services.

Authentication

All endpoints require a Bearer token in the Authorization header.

```
Authorization: Bearer <your_access_token>
```

Endpoints

1. Check for Firmware Update

Checks if a new firmware version is available for a specific device.

```
GET /v1/firmware/check?deviceId={deviceId}&currentVersion={currentVersion}
```

Query Parameters

Name	Type	Description
deviceId	string	Unique device identifier
currentVersion	string	Current firmware version

Response

```
{
  "updateAvailable": true,
  "latestVersion": "2.4.3",
  "releaseNotes": "Bug fixes and performance improvements."
}
```

2. Download Firmware Package

Downloads the firmware binary for the device.

```
GET /v1/firmware/download?deviceId={deviceId}&version={version}
```

Query Parameters

Name	Type	Description
deviceId	string	Unique device identifier
version	string	Version to download

Response

A binary firmware file is returned with Content-Type: application/octet-stream.

3. Report Update Status

Reports the status of a firmware update attempt.

```
POST /v1/firmware/status
```

Request Body

```
{
  "deviceId": "abc123",
  "version": "2.4.3",
  "status": "success", // or "failure"
  "errorCode": 0 // Optional, if status is "failure"
}
```

Response

```
{
  "success": true
}
```

Error Codes

Code	Description
400	Bad request
401	Unauthorized
404	Device or firmware not found
500	Internal server error

Sample Usage

```
// Example request to check for update  
curl -H "Authorization: Bearer <token>" \  
  "https://api.example.com/v1/firmware/check?deviceId=abc123&currentVersion=2.4.1"
```

