

Wearable Device Models

Wearable Device AI

Real-time AI processing on ultra-compact devices such as smartwatches and fitness trackers

Wearable Device Specifications

Apple Watch

RAM: 1GB

CPU: Low Power

Battery: 18 hours

Fitbit

RAM: < 512MB

Very Limited

Battery: 5-7 days

Extreme Model Requirements

Model Size: < 5MB (Ideal: < 1MB)

Inference Time: < 100ms (Real-time processing)

Precision: INT8 or INT4

Batch Size: 1 (Single sample)

Wearable Medical Applications



**Heart Rate Anomaly
Detection**



Sleep Pattern Analysis



Fall Detection



**Arrhythmia
Monitoring**