Case Study | Healthcare & Life Sciences

Cardiac diagnostic for the AI era

The opportunity

Revolutionizing Remote Heart Monitoring

With cardiovascular disease remaining the leading global cause of death, Humeds identified a critical gap: Traditional ECG tools deliver poor diagnostic yield and demand specialist oversight, limiting early detection.

The opportunity was clear : Create a consumer- friendly, AI-powered medical device delivering clinical-precision diagnostics, automated arrhythmia detection, and real-time ECG insights - accessible anywhere, anytime.

The solution

- Engineered Humeds Cardia-3: comprehensive hardware & embedded software solution integrated with cloud-connected platform
- Built mobile/tablet ecosystem for real-time ECG monitoring, cloud sync, and remote diagnostics
- Achieved seamless signal capture via dry electrodes - zero skin preparation required
- Deployed advanced AI algorithms for automatic arrhythmia classification
- Delivered comprehensive admin panel, clinician tools, and analytics engine—accelerating care delivery and diagnostic accuracy

The impact

95% Detection rate of cardiac arrhythmias with 99.6% specificity (MIT dataset)

Comprehensive detection across five standard arrhythmia classifications

Accelerated diagnostics enabling critical early interventions—dramatically reducing healthcare system burden

Fully certified and CE-marked, now being piloted with health systems and private clinics

HTEC — Reduces Risk

HTEC's Med Tech expertise and AI-driven strategies foster innovation and address the most complex technology challenges.

Connect with our AI team today.