CHACHEETAH INC.

Capabilities Statement

Engineering partner for government and MedTech programs

Website: https://chacheetah.com
Email: contact@chacheetah.com
UEI: PX5XA3BN7B23
CAGE: 16ZH0

Chacheetah delivers hardware, regulated software, MedTech R&D, and manufacturing support from concept through production for government, healthcare technology, and scientific programs.

Core Capabilities

- **Hardware and embedded systems engineering:** electronics design, PCB layout, analog front ends, sensor integration, power management, EMC/EMI, and data acquisition systems.
- **Regulated software and platform development:** secure backend systems, API design, database architecture, enterprise platforms, real-time data processing, and scientific computing infrastructure.
- **Biomedical and MedTech R&D:** feasibility studies, proof-of-concept builds, research-grade instrumentation, algorithm development, prototype iteration, and technology transfer documentation.
- **Advanced manufacturing support:** DFM/DFA, supplier qualification, production test strategy, manufacturing documentation, quality system implementation, and production handoff packages.
- **Medical and clinical systems engineering aligned with FDA** design controls, IEC 60601-1 device safety considerations, and secure software development guidelines.
- **Connected device development** including BLE-enabled systems, OTA-capable firmware architectures, and companion software for data review and workflow support.

Differentiators

- Unified delivery across electronics, firmware, backend software, and production engineering instead of siloed specialty vendors.
- Experience supporting medical device, biomedical research, connected health, and industrial programs with reliability and compliance requirements.
- Prototype-to-production continuity for programs that need the same engineering partner through design, validation, transfer, and sustained support.
- Strong signal acquisition and control systems expertise, including high-density EEG, ECG modernization, vital-sign monitoring, and closed-loop thermal therapy platforms.
- Capability to support custom engineering engagements for federal agencies, prime contractors, and regulated commercial clients.
- Active SAM.gov posture presented on company materials with government-focused NAICS coverage in software, MedTech manufacturing, systems design, and R&D.

Relevant NAICS

- 541511 — Custom Computer Programming Services
- 334510 — Electromedical and Electrotherapeutic Apparatus Manufacturing
- 339112 — Surgical and Medical Instrument Manufacturing
- 513210 — Software Publishers
- 541512 — Computer Systems Design Services
- 541715 — R&D in the Physical, Engineering, and Life Sciences

Industries & Program Fit

- Government and federal technical programs
- Medical devices and healthcare technology
- Biomedical research and scientific instrumentation
- Connected systems and secure data platforms
- Industrial systems, automation, and production environments

Representative Engineering Experience

Project	Scope	Outcome Highlights
Multi-Channel EEG Monitoring Platform	Custom analog front end, 24-bit ADC array, FPGA preprocessing, TCP/IP streaming, adaptive filtering and artifact rejection.	Sub-microvolt input-referred noise; 64-channel simultaneous acquisition; real-time streaming at 2 kHz per channel; FDA 510(k) pathway identified.
ECG System Architecture Modernization	Analog front-end redesign, secure BLE 5.0 connectivity, OTA-capable firmware architecture, compliance continuity support.	Obsolescence resolved; secure BLE implemented; 510(k) substantial equivalence maintained; 5-year component availability secured.
Vital Signs Wearable Platform	Ultra-low-power sensor interface, optical sensing module, duty-cycled measurements, companion mobile application.	7-day battery operation; medical-grade SpO2 accuracy validated; IP67 enclosure design completed; FDA De Novo pathway identified.
Closed-Loop Thermal Therapy System	Adaptive PID control, dual-redundant temperature monitoring, fail-safe heating control, treatment session management software.	±0.3°C regulation accuracy; dual-redundant safety architecture; complete treatment audit trail; IEC 60601-1 compliance verified.

Federal Readiness Notes

• Active SAM.gov registration is referenced in company government materials. • Capabilities and case studies support work spanning hardware, software, MedTech R&D, and manufacturing engineering. • Before sending externally, replace UEI and CAGE placeholders and confirm the primary NAICS used in SAM.	• Primary Contact: contact@chacheetah.com • Website: https://chacheetah.com • Document use: capability briefings, outreach to COs, subcontracting, and vendor introductions

Federal Engagement

Chacheetah Inc. collaborates with federal agencies, research institutions, and prime contractors to support engineering and technology development programs.

Engagement models may include:

• Subcontract engineering support

• Prototype technology development

• Embedded systems engineering

• Custom software platform development

• Manufacturing transition and production engineering support