

# Medical Device Threat Modeling



## Understand medical device vulnerabilities and threats from the surrounding network.

SRA understands that contemporary medical devices are not just standalone entities, but part of a complex network of systems and subsystems. We account for the broader ecosystem, acknowledging that potential threats and vulnerabilities may not be confined to the device itself, but could extend to any part of the interconnected system. This holistic approach allows us to identify, analyze and prioritize potential threats in a comprehensive manner, ensuring the highest level of security for the medical device and its surrounding network.

### Overview

SRA's threat modeling service meticulously documents a system's intended function, design trade-offs, vulnerabilities and threats, and existing mitigations, covering both premarket development and post market maintenance phases. Recognizing that there is no one-size-fits-all approach, we use a learning process to identify techniques that fit your team and products.

### High-Level Activities

#### Decomposition

Includes a workshop with the product teams to identify and document components, data flows, and functionalities of the system.

#### Threat Identification

Identify potential threats by considering what could happen in the absence of existing security controls, such as cyber criminals, malicious insiders, supply chain attacks, unpatched software, or hackers

#### Threat Ranking & Risk Assessment

Differentiate threat vs risk, focusing on managing the risk from identified threats. Address threats using four main strategies: eliminate, mitigate, accept, or transfer.

#### Threat Mitigation

Address each threat based on severity and difficulty to remediate. Ranking is determined by the feasibility, likelihood, and potential impact of the identified threat. Optionally, we can track remediation activities through your ticketing system such as ServiceNow, JIRA, or Archer.

### Why SRA?

Our approach is robust, swift, and actionable, yet conscious of your operational ecosystem. SRA can help your organization plan, design, build, and test secure cyber physical systems security.

- Unique experience working with OT, IoT, IoMT and Robotics in manufacturing, distribution and healthcare environments across Fortune 500
- Relationship and experience with leading CPS security solution vendors
- ISA, CISA and SANS trained resources
- Member of the International Society of Automation, Global Cybersecurity Alliance
- Exclusive cybersecurity services partner of Finite State.



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