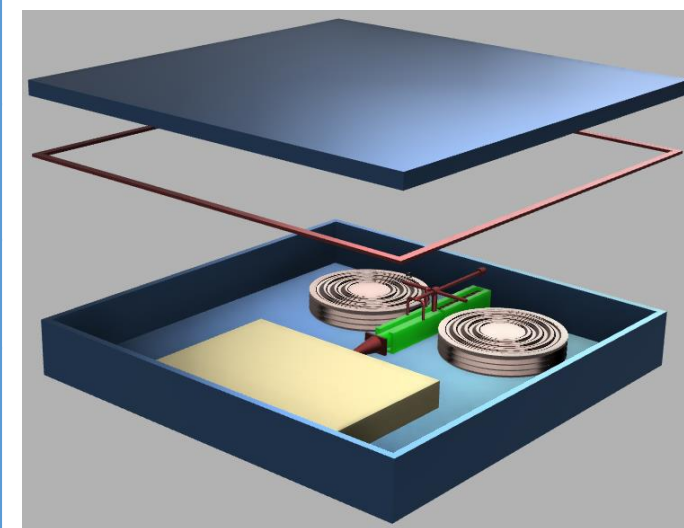
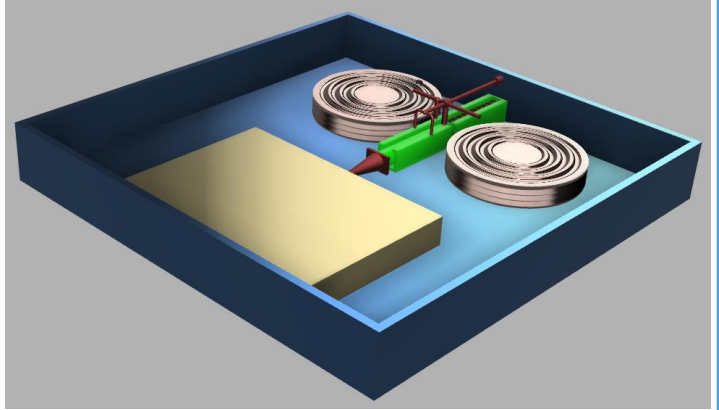


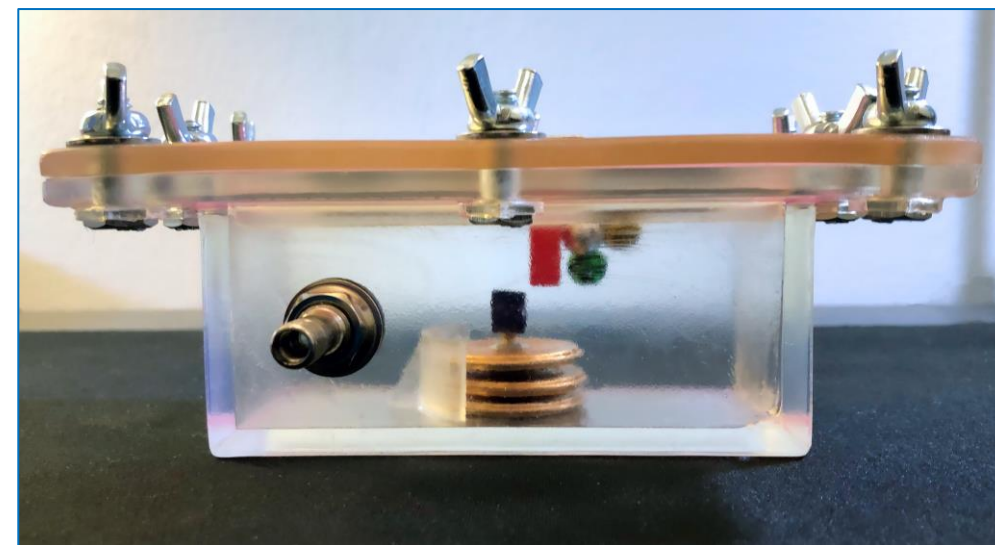
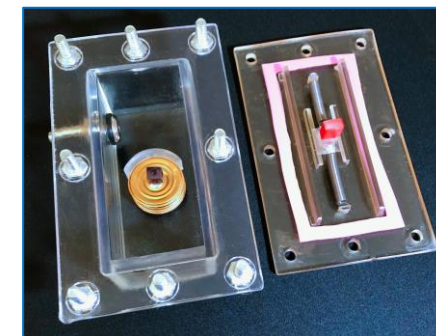
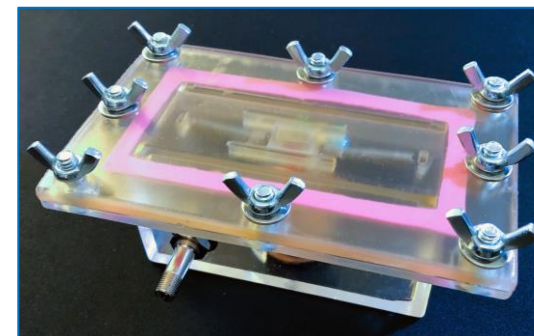
Company:	2Matoe teaming with Mind Moto
Presenter:	Kas Kasravi, C.Mfg.E., JD
Title:	Pressura
Category:	Hardware Security
Summary:	Pressura is a mechanical tamper-proof container for protecting sensitive artifacts that must not fall into the hands of adversaries Pressura destroys an artifact before falling into the wrong hands



Problem:	Certain sensitive artifacts must never fall into the wrong hands - Physical security of artifacts can be just as critical as cybersecurity Better destroyed than discovered by adversaries 
Current Solutions:	- None Access restrictions Containers with electronic alerts - Swedish Patent SE528760C2 (electronic gas pressure sensor ← a significant limitation)
Limitations:	The artifacts can fall into the wrong hands Access circumvented Loss of electrical power

Our Solution:	A tamper-proof container that destroys the artifact upon tampering
Magic Sauce:	1. An entirely mechanical container 2. No battery or electricity; virtually lasts forever 3. Activates by changes in the container's internal gas pressure • Sensed by aneroid capsules 4. Multi-modal destruct mechanism • Micro-explosion, chemical, magnetic, ram, harpoon... 5. Inner surfaces coated with a self-repairing lining (e.g., microcapsules) 
Notes:	• “Key” is the internal gas pressure • Randomized & unique • The container must be sealed in a pressure chamber • The artifact can be operational while in the container • Any wiring must be sealed • Optional “backdoor” 

Proof-of-Concept:	- A proof-of-concept container has been developed and successfully tested - Rings bells when breached
Fabrication:	3D printed container (stereolithography, clear resin, sealed) - Three cascading aneroid capsules, vacuum pump, nozzle, fasteners, and silicone seal
Specifications:	5 mm wall thickness - Internal pressure: -600 mmHg - Senses increase in air pressure - Trigger travel: 3 mm



Applications:	DoD; aerospace; intelligence agencies; organizations in possession of highly sensitive artifacts
Impact:	Enhanced national and industry security via preventing sensitive artifacts falling into the hands of adversaries
Current Status:	• Concept developed • A simple prototype developed and successfully tested • Patent Pending (# 17/654,792)
Nest Steps:	• Research and development • Materials, components, mitigating additional attack modalities, manufacturing, supply chain, additional IP • Develop several working prototypes • 6 – 9 months • Investigate specific use cases in the government and industry • Market ready: 12 – 18 months