

Making Mechanical Metamaterials

Multiscale Systems creates customizable advanced materials



What are mechanical metamaterials?

Geometrically-enhanced structural materials that have multiple beneficial characteristics.



New IP



Government funded

Skunkworks

We continuously develop new mechanical metamaterials

Our development cycle starts with computational design and prototype creation, followed by rigorous empirical testing — then we do it all again.



Customer discussions

Through customer discovery conversations, metamaterial characteristics are chosen based on project requirements.

Customizing



Metamaterial customization

We design a customized metamaterial product based on existing R&D and the needs of our customer.



Validation

Custom designs are run through the same gamut of tests and modifications as our basic metamaterial development cycle.



Manufacturing file

Your metamaterial solution is available as a digital file ready for production.



Raw materials

Our metamaterials require no chemical or molecular engineering. Using existing materials like metals, composites, and polymers means cost savings for our customers.

Production



Seamless integration into supply chains



Manufacturing methods

Mechanical metamaterials offer flexible manufacturing. Whether it's pattern transfer, milling, molding, additive, thermal - the method is up to you.