Idea

I am interested in Metamaterial Visual Output. So, I investigated metamaterials are artificial structures with mechanical properties that are defined by repetitive patterns, rather than the material they are made of. Can we make metamaterial structures that change their appearance when we interact with them? One approach could be to create structures that reveal predetermined colors when force is applied. Someone already made a successful start on this idea.

Changing form to inform different meanings

Possible Applications

There are many things we get to interact with daily,

Related Papers

The main contribution is to think of metamaterials as machines. The goal is to use metamaterial object perform mechanical function. The authors successfully used linear motion instead of rotary movement on a metamaterial door latch. They suggest creating metamaterial mechanisms by implementing specialized 3D editor, which can add mechanical functionality to the object, apply forces and simulates how the object deforms in response. (Ion A, Frohnhofen J, Wall L, Kovacs R et al. 2016. Metamaterial Mechanisms: Proceedings of the 29th Annual Symposium on user interface software and technology. In: ACM Conferences. [https://dl.acm.org/doi/10.1145/2984511.2984540. Accessed 15 May 2022](https://dl.acm.org/doi/10.1145/2984511.2984540.%20Accessed%2015%20May%202022).)

(Ion A, Wall L, Kovacs R, Baudisch P (2017) Digital Mechanical Metamaterials: Proceedings of the 2017 CHI conference on human factors in computing systems. In: ACM Conferences. https://dl.acm.org/doi/10.1145/3025453.3025624. Accessed 15 May 2022.)

Embedded multiple dynamic textures into one 3D printed object using metamaterials.

Exploration