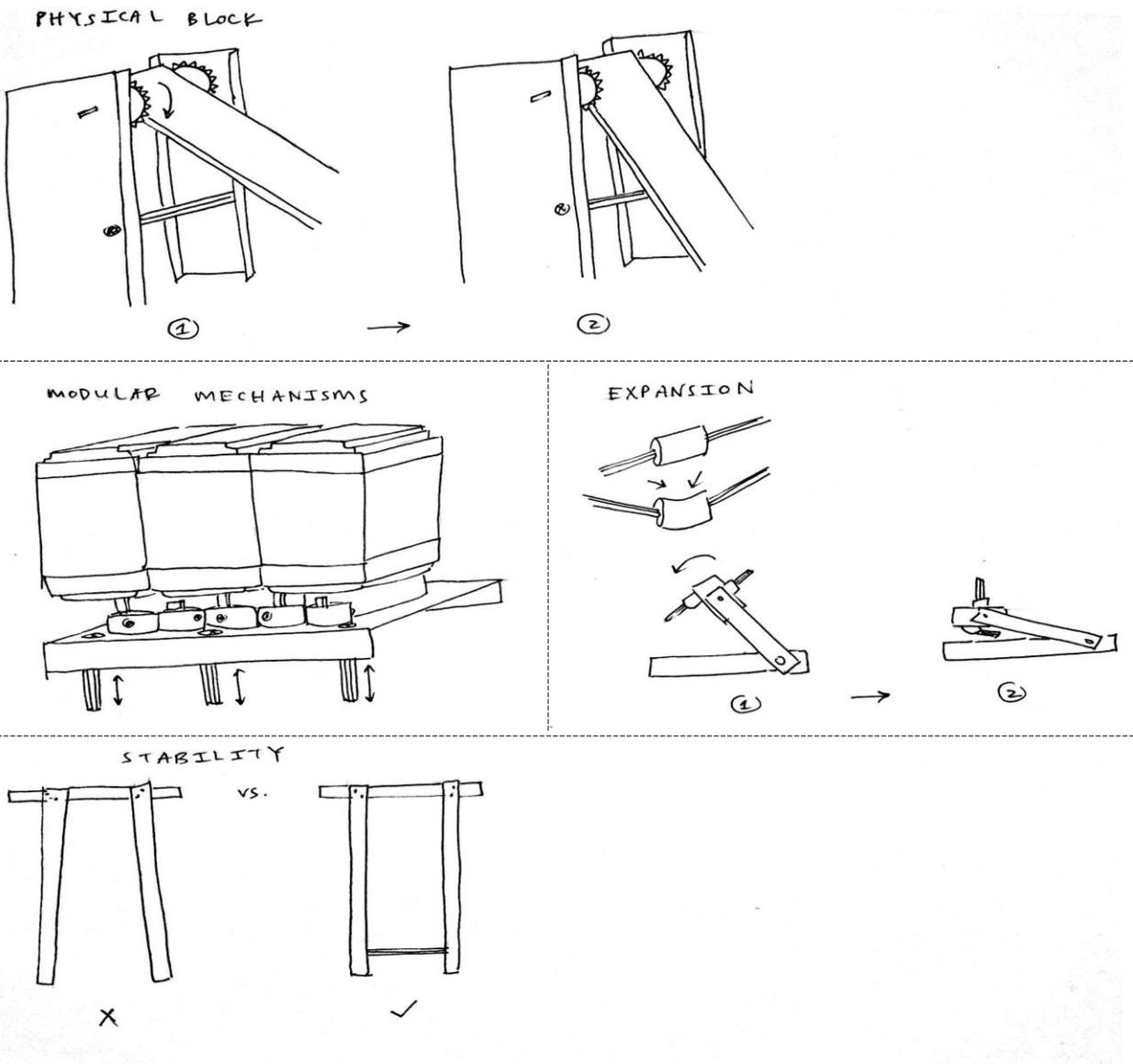


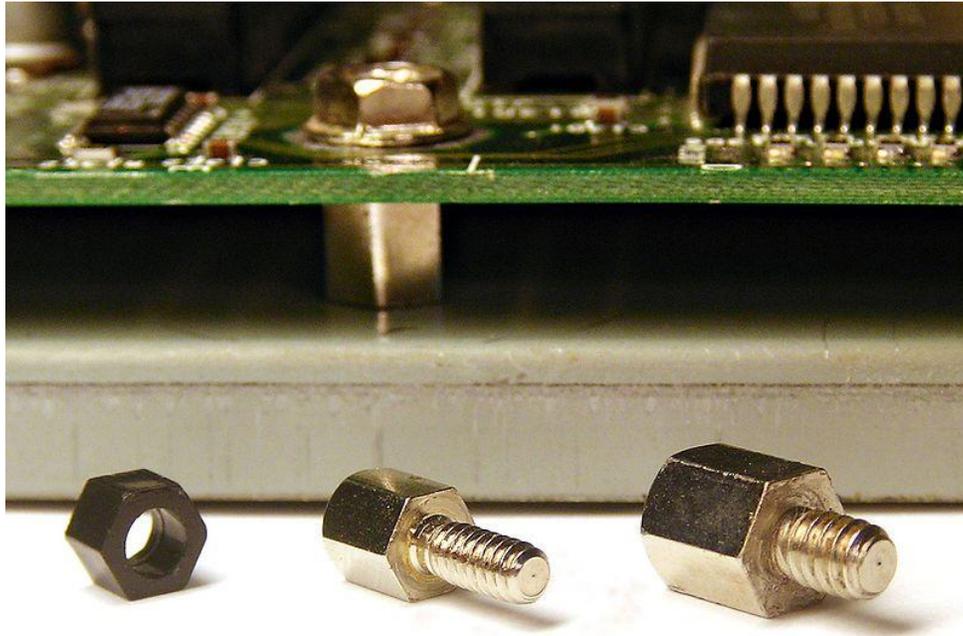
Standoffs: An Educational Video by Exothermic 10V

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Often easily overlooked, standoffs are essential parts to any basic robot. The usage of standoffs creates distance between two objects and this simple concept can be incredibly versatile. Although standoffs come in predetermined sizes, simple connections between the standoffs create the ideal length for any situation. The hexagonal shape fits into a wrench and easily tightens. The geometric strength of six triangles within this hexagonal shape of the standoff largely contributes to its fortitude. Furthermore, the strong structure of a standoff allows it to withstand a significant amount of weight. Standoffs have the capability to resist the downward force of an arm, thus forming a physical block if needed. They do not sag, bend, or twist which makes them a dependable part for any structure. One such structure is a modular base, which essentially consists of 4-8 supporting standoffs. Just as ancient buildings were built upon foundational concrete pillars, standoffs act as a solid base.



Looking back in history, the concept of standoffs has long been exploited. The Greeks built magnificent temples by elevating heavy stone roofs on a few columns. In the modern world, standoffs have not lost their practicality. A common and important use of standoffs can be found in electronics. In order to prevent an electrical short when two electrical components are in contact, standoffs serve to separate them. Standoffs can also be made with other materials such as plastic or clay, regulating the flow of charge and allowing the standoff to act as an insulator.



Even in standard households, standoffs have a place as simple, movable support structures. In comparison to permanent options such as concrete or plaster, standoffs are temporary and easily removed.



The simplicity behind the design of a standoff adds to its expediency. Standoffs are aesthetically pleasing and quickly installed. They offer an adaptable and straightforward solution to many issues.