

Hydraulic Can Crusher



Your objective is to half-crush as quickly as possible a pop can using a hydraulic system that you design, build, and test prior to the event.

The hydraulic system is to be driven by hand, with water as the hydraulic fluid and medical syringes as the pumps and actuators. The force used to crush the can must come exclusively from the syringe(s) hand-driven by the team, and transmitted to the can by the hydraulic system. No body weight or muscle force is to be applied directly to the can.

The event is timed. Teams will be given a standard, full can of pop and 750 mL of water in a large glass. There will be a mass start for the event, and team time will run until the team successfully passes the crushed can through a 'half height' sizing jig which will be at the front of the room. Hydraulic systems must be initially unprimed- priming is to begin upon the 'go' signal.

For inspiration, consider the following
<https://www.youtube.com/watch?v=CbGrjhDtLGw>