

Abstract Submitted
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Construction and Investigation of three HTSC diamagnetic devices JOHN JONES, ADAM REED, AZIZA DANG, TAHA FEROPURI, POOYA AZAR, DANIEL GORDON, STEVEN HENDRICKSON, Northern Virginia Community College — NVCC physics students plan to build and investigate the operation of three devices based on the interaction of permanent magnets and high temperature superconductors. Those devices are: A magnetic flywheel; A Meissner Effect Heat Engine: a wheel rimmed with superconductors which spontaneously spins in the presence of a magnetic field; A superconducting pendulum: Another thermodynamic engine—the pendulum transitions between superconducting and insulating states, gaining kinetic energy each time.

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