The new model of the fast shutter is an electromagnetic system consisting of two coils, with 500 turns of 32 gage wire, assembled on both sides of a reflector payload. When voltage is applied to the coils, the payload shoots up, currently at an upward velocity of 5.56m/s. For this set up, a minimum holding current of approximately 107mA is required to maintain suitable blocking. The holding current is a compromise based on the self-heating effects of an object in vacuum. This system is used to block an optical pulse that would otherwise damage photodiodes at the anti-symmetric port of the LIGO interferometer with prolonged exposure.

At the moment, eddy current damping is being used to reduce the natural oscillatory tendency of any payload in a magnetic field. This works at low voltages. Presumably, this technique can be used at high voltages after the issue of arresting the payload is solved. A rectangular copper tube decreases the potential energy of the entire system by approximately 12%. This energy removed was calculated by comparing the relative height with the relative maximum height achieved by the payload with and without damping. These values were then used to calculate the potential energy of both experiments and compare the difference.

There are still unsolved problems. For example, at high voltages, the payload shoots out of the fast shutter and is presently not arrested. Additionally, the final geometry of the coils still needs to be defined. See pages (blank) in Lauren Lo Coco's notebook for more information about the coil geometry. Furthermore, an experiment for the next student to try would be to test the double magnet payload at high voltages within the white fast shutter model and then the peak fast shutter model. There is an unanswered question: Why does the payload hit the ceiling with the peak fast shutter and only shoot up approximately thirty four inches with the white fast shutter?