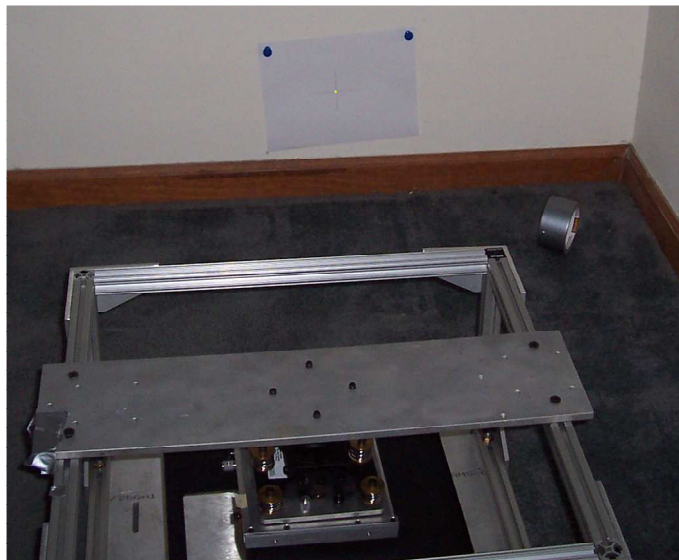


## Apparatus

- Test Cage
  - The 20" x 22" aluminum test cage is used to act as a false ceiling, allowing the MASM device to be connected to the Chief RSA mounting hardware as it would in the VCCT
- Laser Pointer
  - The pointer will be fixed to the bottom of the projector to simulate the focal point of the projector
- 20lb Weight (simulated projector)
  - Instead of using a real projector, a 20lb weight was used in its place. The weight was suspended from the Chief SLB mount which was mounted to the bottom of the MASM device. The weight allowed the springs to be placed under the correct compression that would be applied to the springs as if a real projector was suspended from the undercarriage of the device.
- Rubber Mallet
  - The mallet was used to create the force of impact
- Digital Video Camera
  - This camera will be fixed in its location to record the movement of the focal point as the device is given a series of short impulses.



*Figure 19: Experiment 1 Test Set Up*

### Experiment 1 Procedure

- Disconnect the MASM from the test cage and connect the Chief RSA mount to the Chief SLB mount
- Connect the 20 lb weight to the Chief SLB mount
- Fasten the laser pointer to the bottom of the 20 lb weight using duct tape to simulate the focal point
- Attach a sheet of paper with cross hairs to the wall to give a good reference of movement
- Using the rubber mallet hit the top of the aluminum ceiling directly in the center. (the center point of the 4 black screws extruding from the top)
- Disconnect the SLB bracket from the Chief RSA mount and install the MASM. (directions are located in the operations manual)
- Re-align the focal point of the laser pointer to the center of the cross hairs
- Using the rubber mallet hit the top of the aluminum ceiling directly in the center. (the center point of the 4 black screws extruding from the top)