



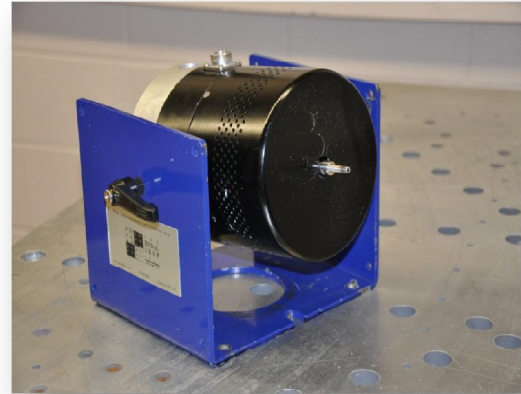
## MODAL EXCITER

**Manufacturer:** The Modal Shop  
**Type/Model:** 2100E11  
**Frequency Range:** 2Hz – 3kHz with 1" Stroke  
**Force:** 100lbf (440N) Peak

### Input Excitation Types:

- Random
- Burst Random
- Periodic Random
- Sine
- Burst Sine
- Sine Dwell
- Sweep
- Arbitrary
- Triangle
- Square
- Chirp

### Animated Modeling



The modal exciter applies a force at a known frequency/displacement to an object. Each structure has a unique frequency known as its Natural Frequency. This frequency can be picked up through strategically placed accelerometers along the structure. Any defects or abnormal stresses will result in change the Natural frequency of the structure. Frequency tests are especially useful for determining the quality of composite structures without using destructive investigation. After a baseline frequency is known for the structure it can subsequently be tested after a period of use. Any significant changes in the baseline Natural Frequency of the structure can be interpreted as a loss of strength. Using this same system we have the ability using an impact hammer to strike and object with a known force and see the effects in other areas of the object with accelerometers placed on the surface.