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**Manual:**

**Observation 1:** Concept of response spectrum

1. There are 3 buildings shown on the screen. User can select mass and stiffness of all 3 buildings. However, user need to make sure that at least two buildings time period is same.
2. Select the earthquake ground motion record and also damping.
3. Run the experiment.
4. You will observe after completing that the maximum displacement of the oscillators with same time period is same irrespective of their different mass and stiffness values.

**Observation 2:** Construction of response spectrum

1. On the screen you can see 5 different buildings. User can set the time period of each building according to their choice. The range of time periods that can be used from 0.1sec up to 4.0 secs.
2. After selecting time periods, user can select the earthquake ground motion record of their choice. User can also change the damping ratio.
3. Start the experiment and observe on right hand side top. User can find the instantaneous response of all 40 buildings (time period 0.1 to 4.0 sec) and also the envelope of maximum response.
4. User may repeat the experiment using different ground motion records and damping values.