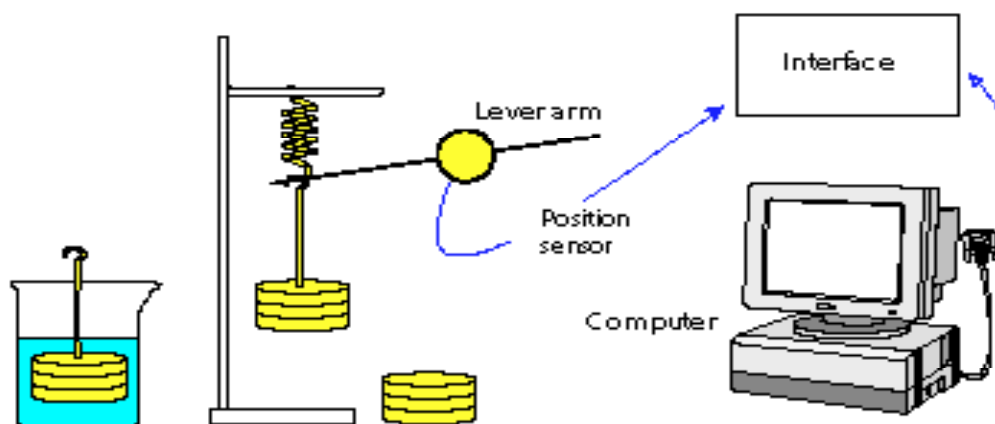


# Oscillator motion



A position sensor is attached to a weight and spring assembly as shown. This can be used to study simple harmonic motion and the effects of changing the mass or damping.

## Apparatus

Clamps & stand, spring and masses, interface and position sensor.

## Setting up

Set up the position sensor, spring and masses as shown. Connect the sensor to socket 1 on the interface. Test the motion of the oscillating weight and check the time taken for it to stop moving - with one or many weights. You will need to adjust the position sensor arm to ensure that when it is still, the screen trace is say, halfway up the screen.

Some systems recognise the sensors you attach automatically, in others you do this yourself.

## Recording the data

Record for 30s and displace the weight. If you record for much longer you will lose some of the detail in the graph.

Store the graph and make another recording - displacing the weight a bit more this time.

## Using the results

How does the graph describe the movement of the weight?

Save your data on disk. Print the graph.

