**Mechanical screw jack**

**Abstract:**

A screw jack is a type of jack that is operated by turning a leads crew. In the form of a screw jack it is commonly used to lift heavy weights, such as the foundations of houses, or large vehicles.

Power screws are used to convert rotary motion into translatory motion. A screw jack is an example of a power screw in which a small force applied in a horizontal plane is used to raise or lower a large load. The principle on which it works is similar to that of an inclined plane. The mechanical advantage of a screw jack is the ratio of the load applied to the effort applied. The screw jack is operated by turning a lead screw. The height of the jack is adjusted by turning a lead screw and this adjustment can be done either manually or by integrating an electric motor.

In this project we design the model of screw jack and perform the structural analysis on screw jack.