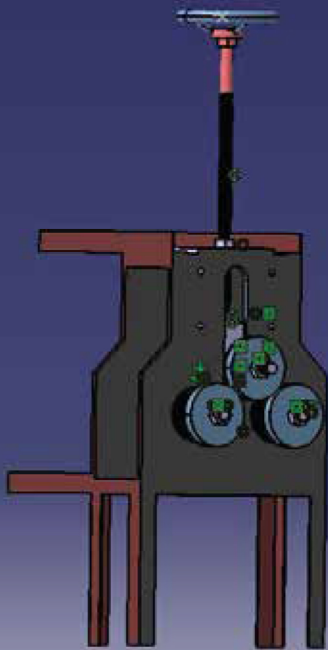


A bending machine is used to bend a metal rod, bar, sheet or pipe. Earlier, these bending operations were performed using hammers and human efforts. The manpower requirement was more and the operation was expensive, time consuming, and less productive.

There is no proper small-scale bending machine for bending a pipe or rod. The team conducted a number literature surveys of different kinds of bending machines available in the market, and analysed different parameters like cost, speed, wrinkle formation, portability, production time, accuracy etc. Based on the learning, the team has designed the vertical roller press bending machine using CATIA V5 software and a prototype model. The machine uses three rollers to bend metal pipe or rod. During the roller bending process, the metal rod, metal sheet, bar and pipe is passed through consecutive rollers that gradually apply pressure on the pipe, which changes the curvature of pipe or sheet.

#### Features

- This bending machine bends metal rods, bars and pipes into a curve or angular section and also into other curvature shapes
- Can bend up to 20mm diameter of mild steel rod
- The size of the machine is very small compared to other bending machines



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## PROJECT

### VERTICAL ROLLER PRESS BENDING MACHINE

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