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# Mechanics of Materials

## Project 3 - 2

by

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Mechanics of Materials: N. Fatchurrohman

- The project will be based on the design of small load gantry crane that use in industry. It use two I-beam to support the load when it is applied or hang on the chain. Each side will be supported by two end truck that can glide on a runaway.



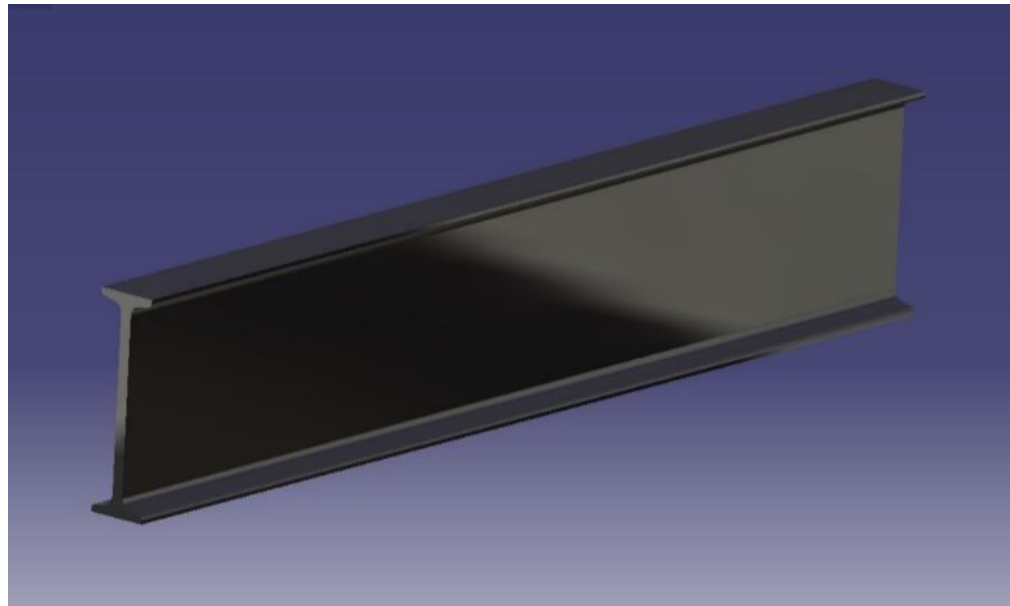


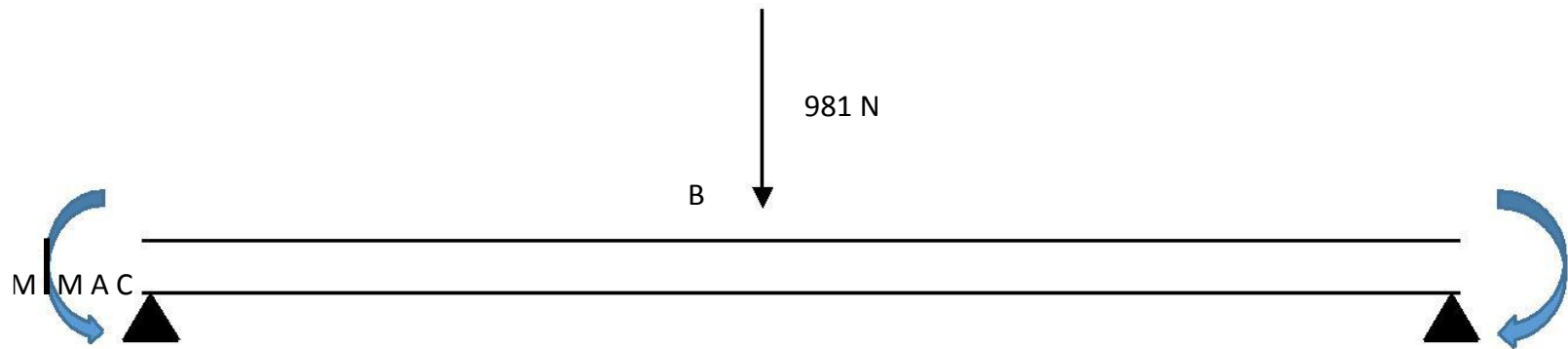
Figure 5 I-Beam 3D view



- This project has been decided to analyse one of the I-beam that has been given load in y-axis. Therefore the amount of load will be divided into two because the both of I-beam share same amount of load. The length of the beam will be 1 m long. Please refer to chapter 4.0 for more detail dimension.



# 3.0 FREE BODY DIAGRAM



- Based on above free body diagram, there are moments that acting on the beam as show above. The amount of load at point B will be 981 N as it has been divided by two. Point A and C will be a fix support.