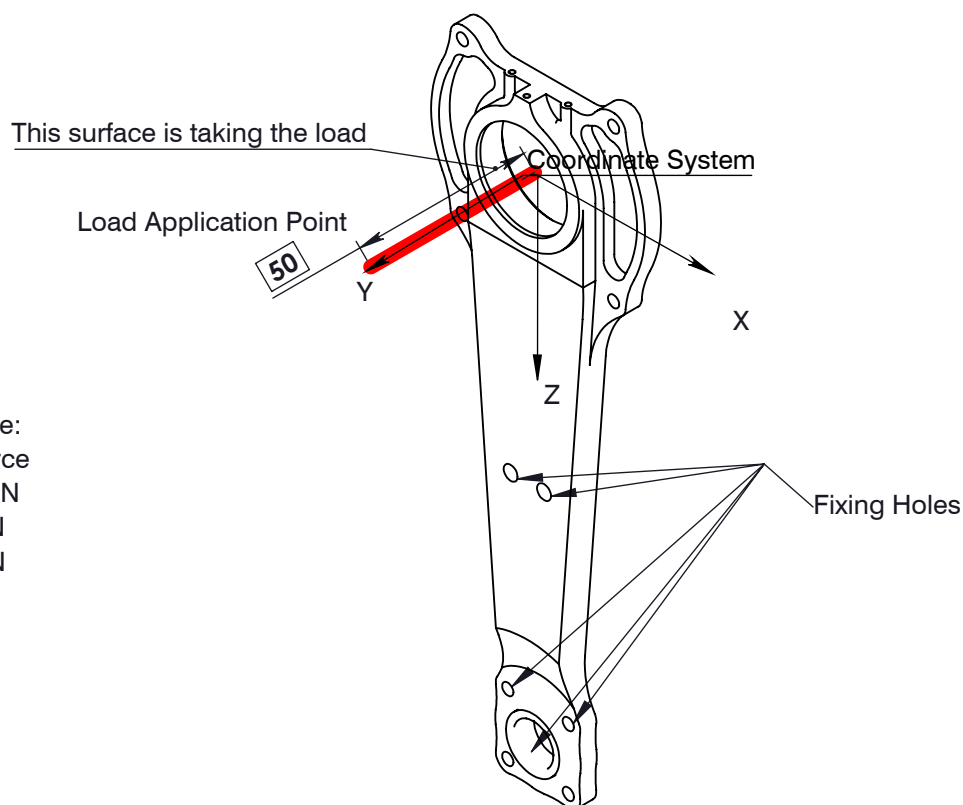


## Simulation case

- Let us now simulate the part.
- The part is loaded through a shaft connected to the bearing of Ø37mm OD.


## Questions

- (1) Set up the simulation with the loading and constraints indicated in the drawing below, considering the mentioned shaft (not shown) as a rigid body.
- (2) If the shaft was in the model, how would you set up the simulation?
- (3) Based on the simulation results, how would you approach to reduce the weight of this part?



Simulation Case:  
 Load Type: Force  
 Fx max= 1600 N  
 Fz max= 430 N  
 Fy max= 228 N

**Please Note:**  
 • For the missing dimensions, refer to the provided 3D model.  
 • All the present dimensions in this drawing are to be inspected, regardless as if marked for inspection or not.

Material: <b>7075-T6 (SN)</b>	Drawing Number - Name: <b>HipFork - Mechanical Design Case</b>	Configuration ( Neutral )
Approx Weight (g): <b>192.14</b>	<i>This drawing and any information or descriptive material set out on it are the confidential and copyright property of Halodi Robotics® and MUST NOT BE DISCLOSED, COPIED, LOANED in whole or part or used for any purpose without the written permission of Halodi Robotics.</i>	Description:
Finish:		Designed by: <b>Armin</b>
Unit : mm General Tolerances: Linear: ±0.06 Angular: 1.5° Surface Finish: Fine Machining		Design Date: <b>23/07/2018</b>
Projection Method: <b>THIRD ANGLE</b>	 <b>HALODI</b> robotics <small>Solgaard Skog 139, 1599 Moss, Norway halodi.com</small>	Modified by: <b>Henrique</b>
		Drawing Publish Date: <b>17/11/2020</b>
		Sheet: <b>2 of 2</b> Sheet Size: <b>A4</b> Drawing Scale: <b>1:2</b>
		Part Revision: - Drawing Rev.: -