

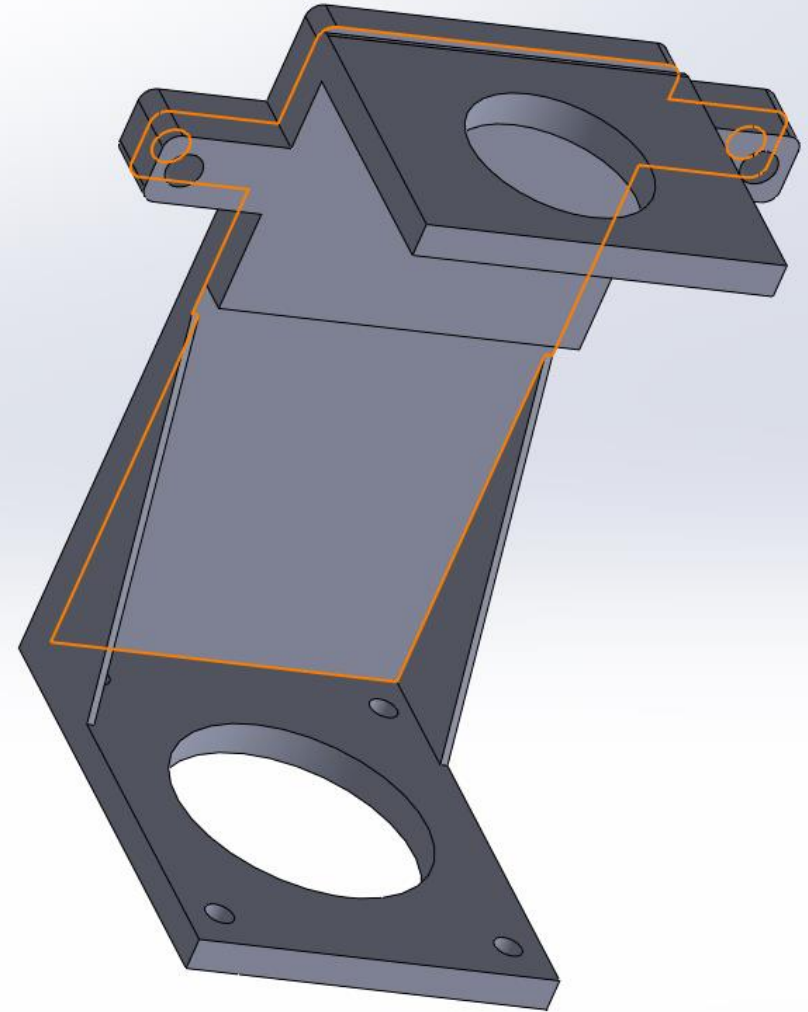
Concept O₂ sensor stand for
Powder metal 3D printer

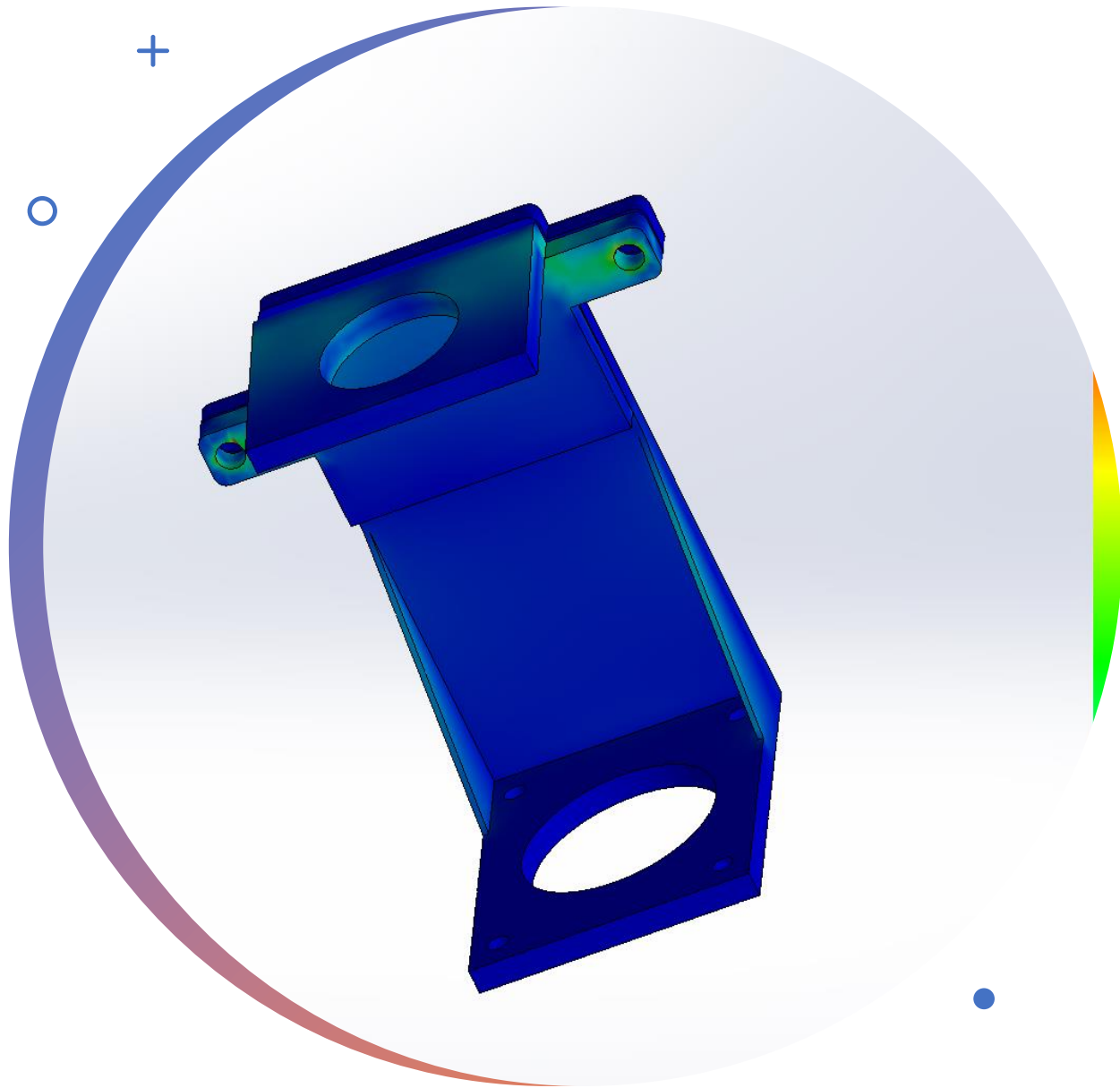
Challenges to overcome

- About 30 cm above from the surface
- **Should hold the neutron sensor weighing 4kg along with the locking unit**
- **Obtain accurate reading of 0.2% oxygen of vacuum chamber when inerted**

Design concept

Bracket made from aluminum for ease of machining and at a height of 30cm from the surface of the 3D printer





FEA

The Bracket Can successfully hold the Ntron sensor with the locking unit total weight of 5.5kg with a downward force of approx. 50 N

- Programmed CNC mill for machining
- Used GibbsCam for G code
- Final result of oxygen % inside the vacuum chamber was 0.2

