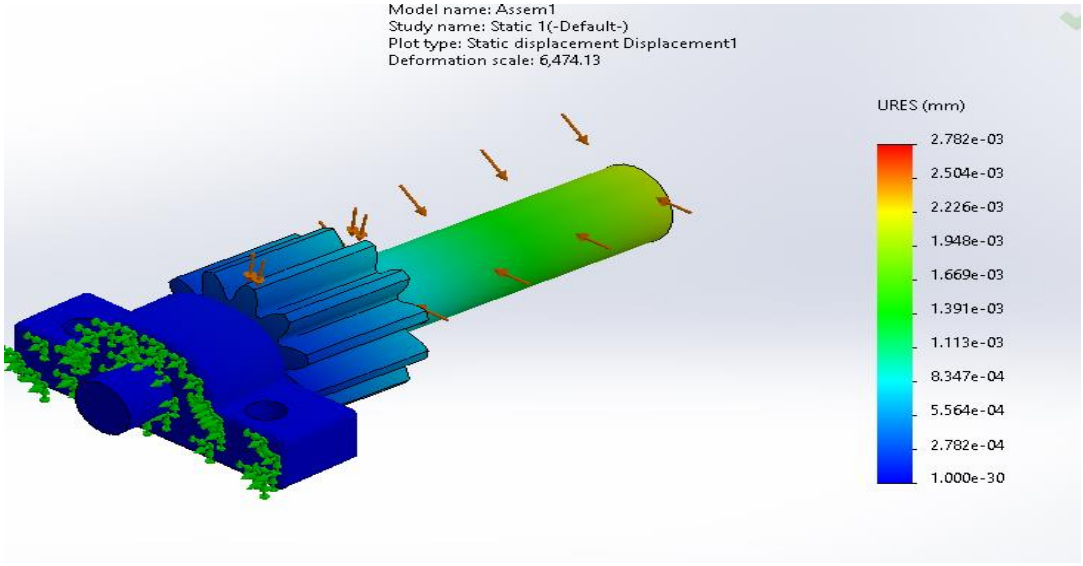
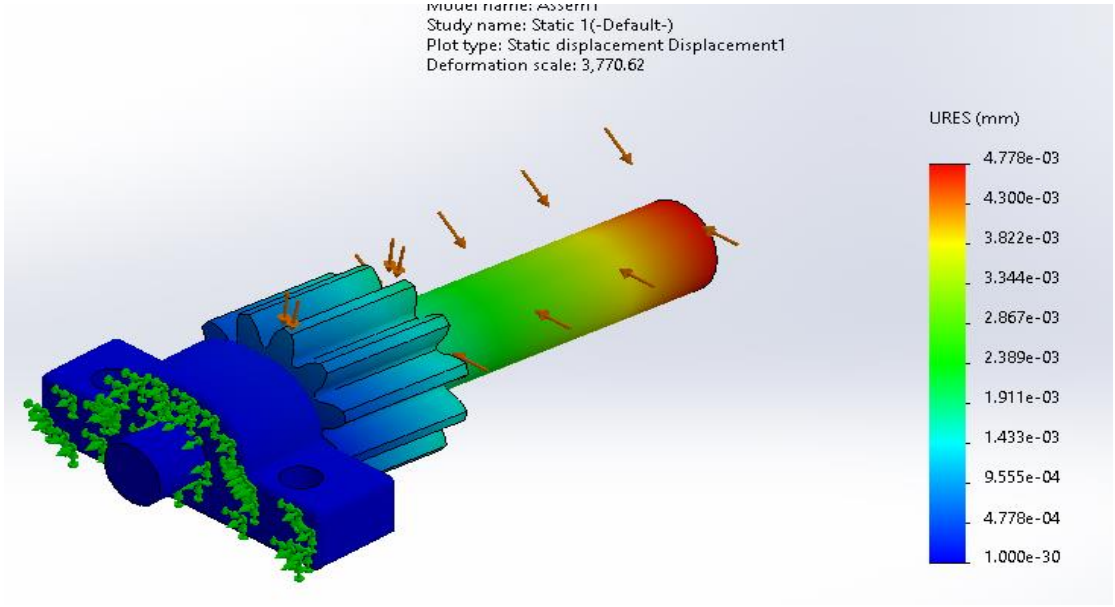
Stress analysis of gear and shaft

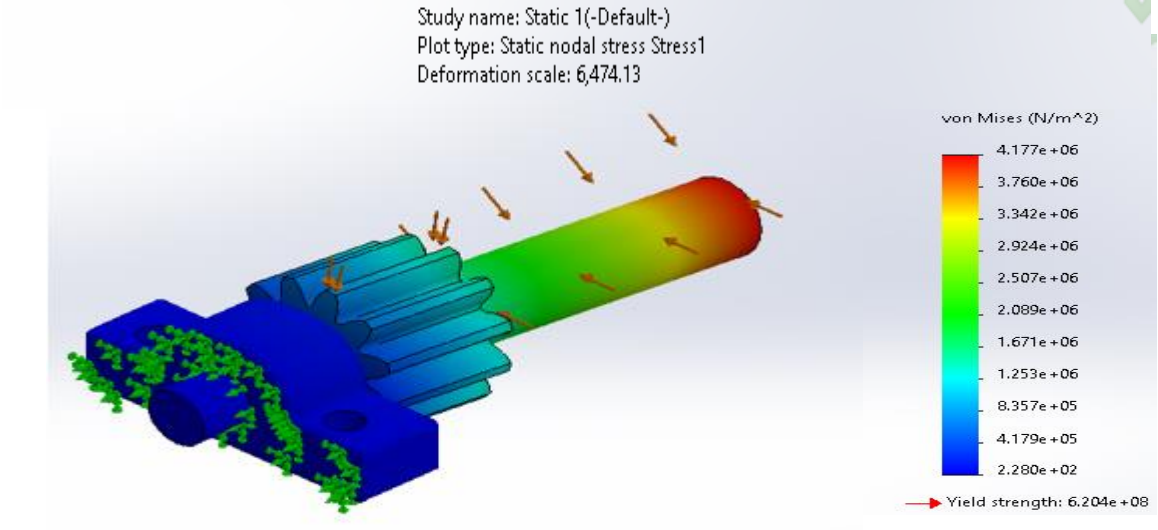
Alloy steel displacement



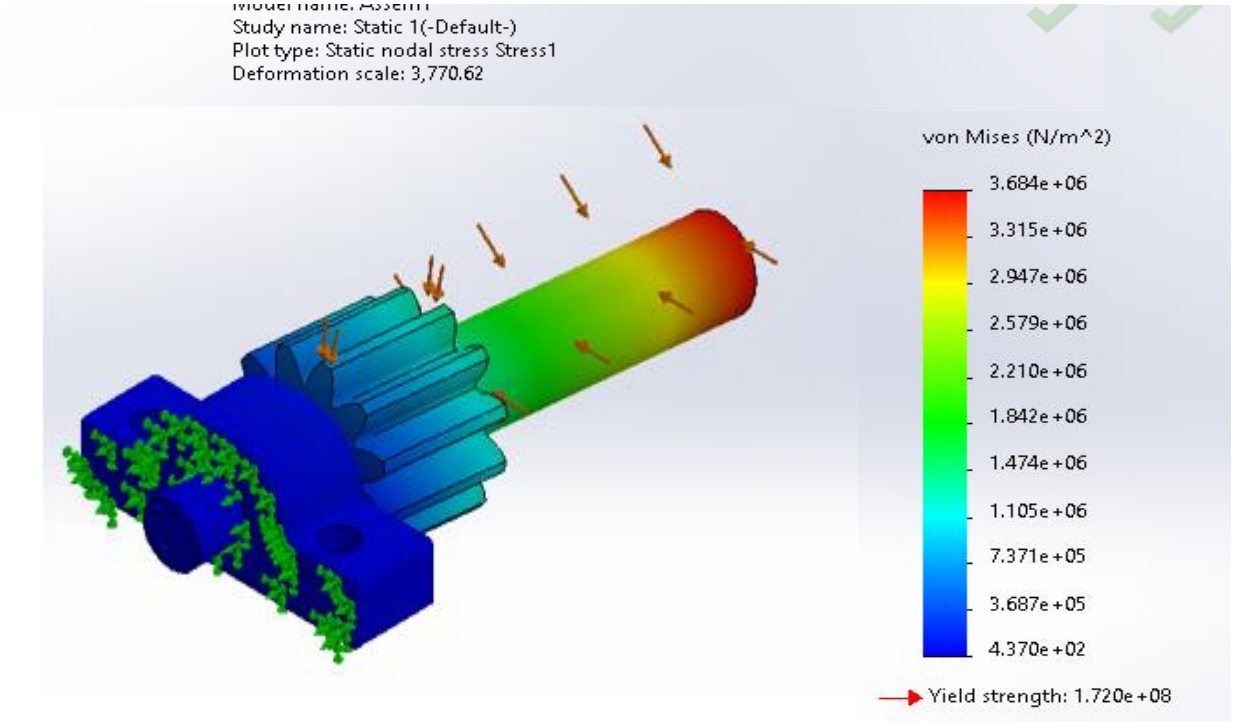
Beryllium copper displacement



Alloy steel Von-Mises stress



Beryllium copper Von-Mises stress



Result:

Stress and Deformation with different materials as Gear and shaft:

Material	Stress (N/m^2)	deformation
Alloy steel	4.177e+06	6474.13
Beryllium copper	3.684e+06	3770.62

Conclusion:

- In this project a gear and shaft are designed to be used in varies auto machine.
- Stress analysis performed by solid works.
- By comparing the result of two material the alloy steel has more stress and more Deformation than Beryllium copper.so the best material is beryllium copper because It has less deformation.