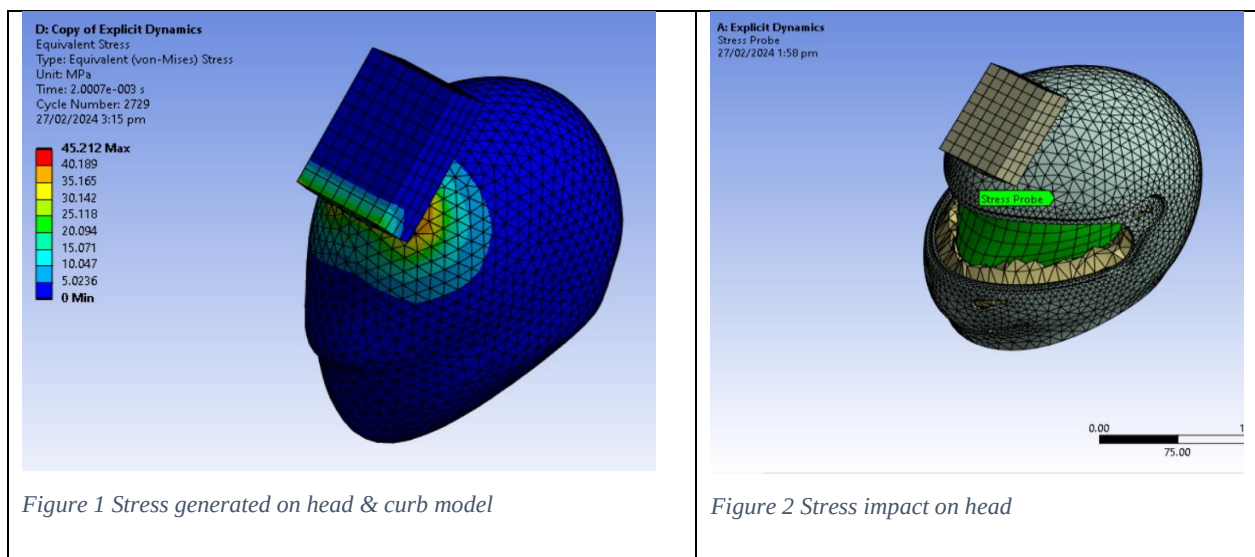


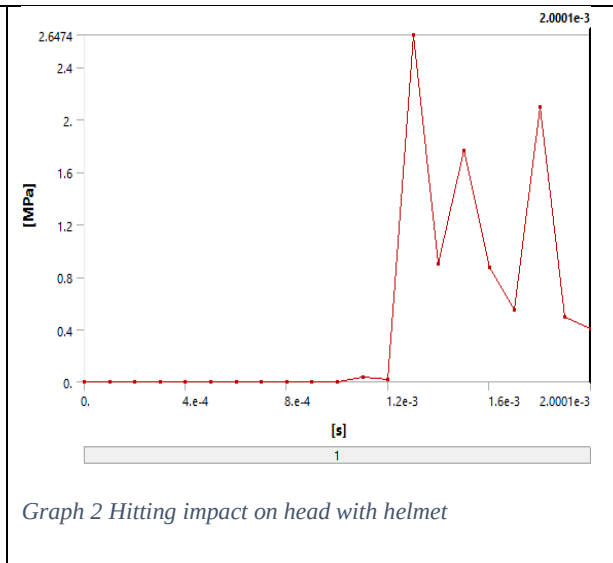
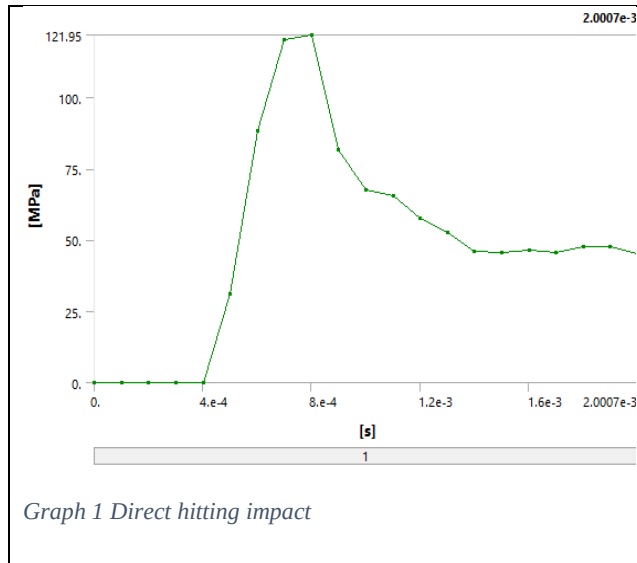
HELMET DESIGN



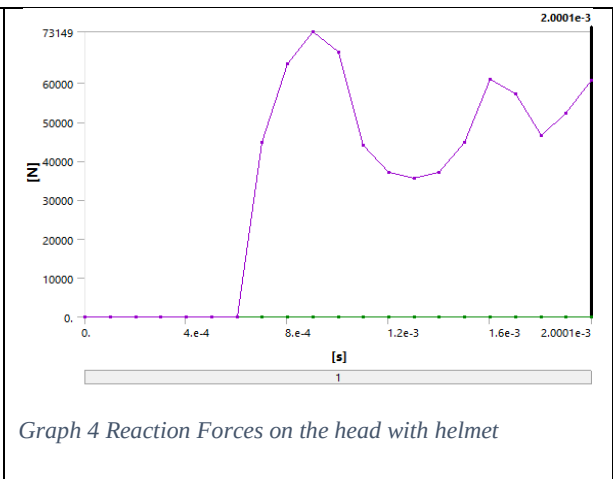
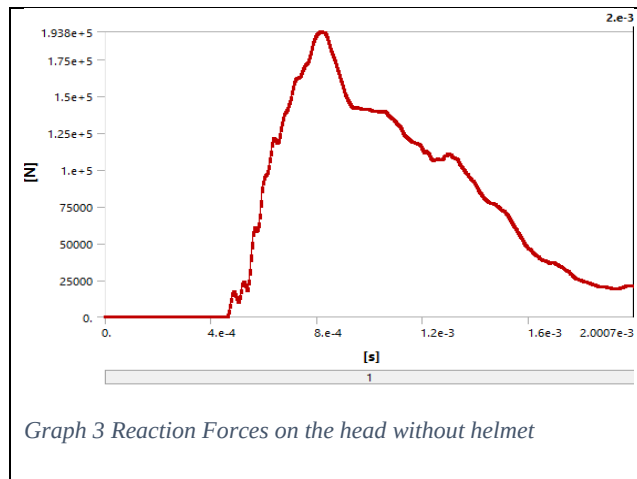
Analysis Results

Stresses:

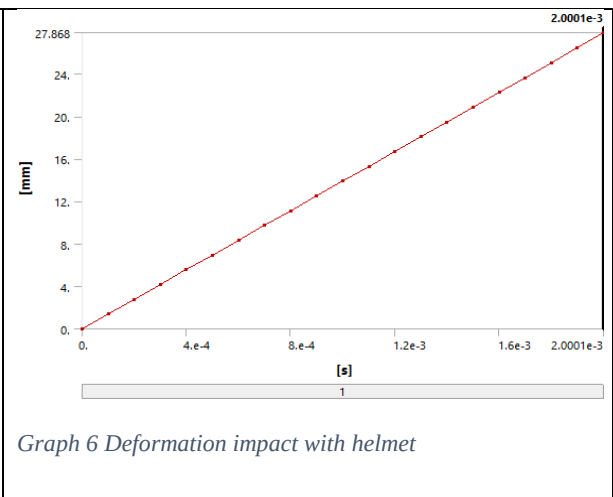
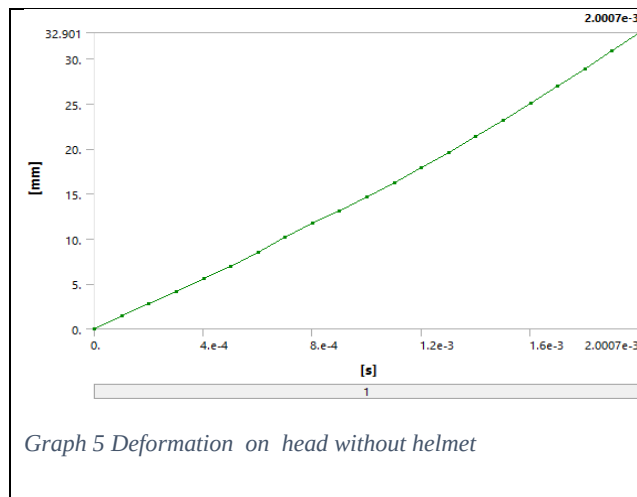




Reaction Forces:



Deformation:



Thermal Analysis

Temperature Distribution:

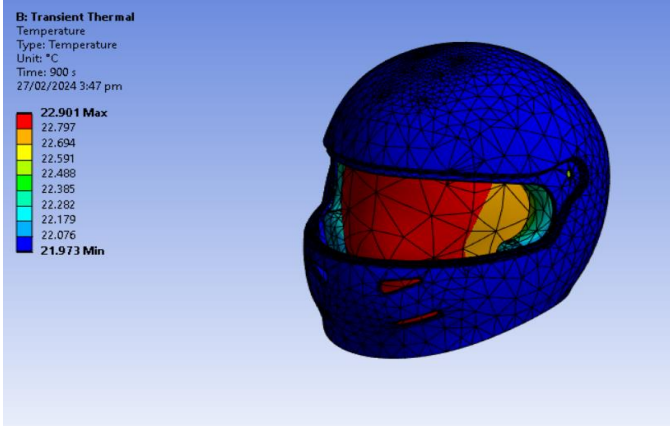


Figure 3 Temperature Variance

Total Heat Flux

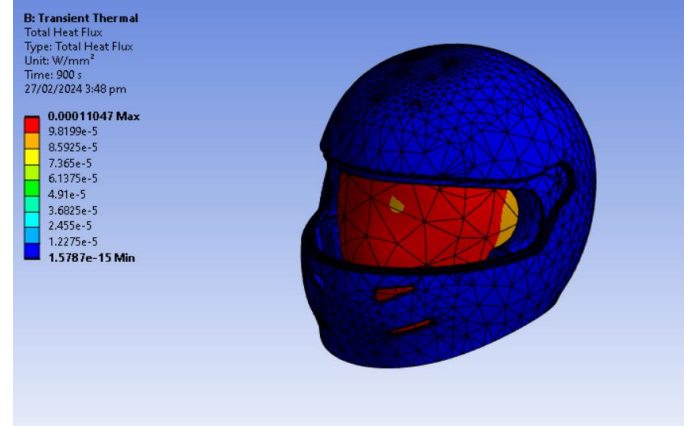


Figure 4 Heat Flux Results

1.1 CFD Analysis

1.1.1 Results

Velocity Profiles

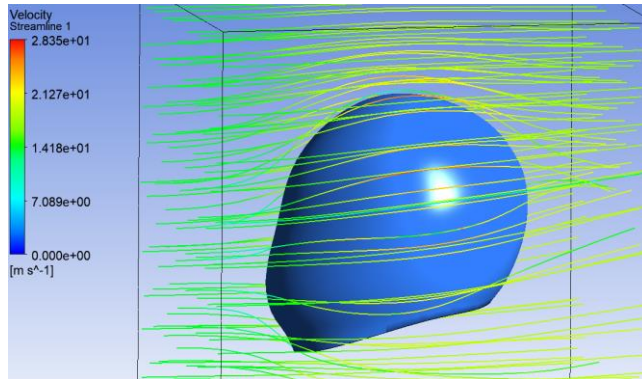


Figure 5 Fluid flow trajectories

Pressure Distribution:

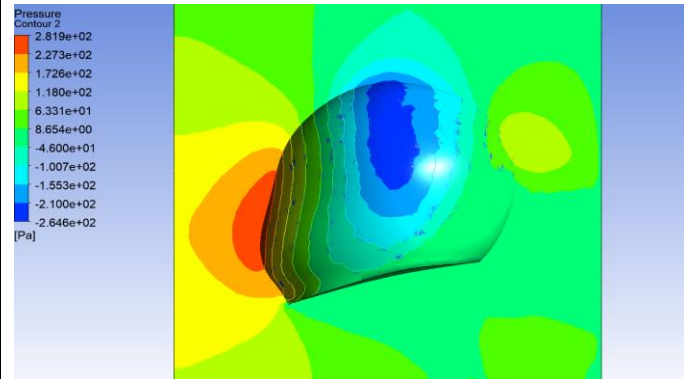


Figure 6 Pressure distribution

1.1.1.1 Drag force and coefficient:

$$C_D = \frac{\{\text{Drag Force X}\}}{0.5 \times (\text{Density} \times \text{Area} \times \text{Velocity}^2)}$$

$$C_D = \frac{\{4.7\}}{0.5 \times (1.225 \times (0.056) \times 13.9^2)}$$

$$C_D = 0.71$$

