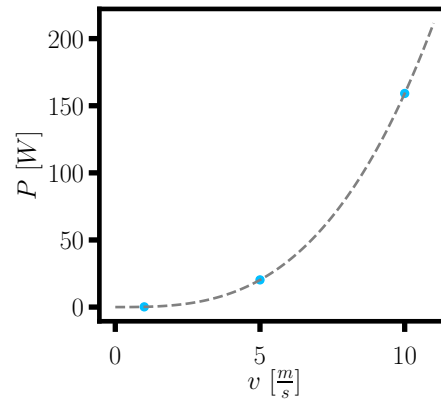
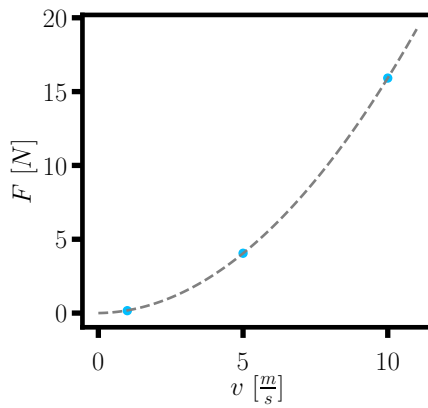
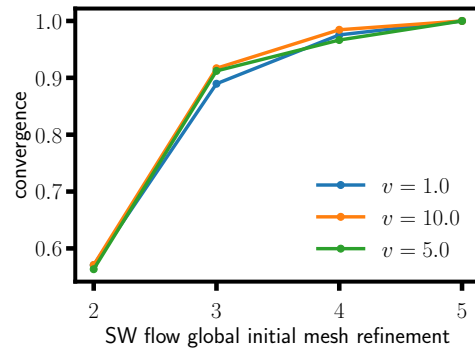


Aerodynamic simulation in SolidWorks Flow dink

Solidworks flow simulation for a simplified version of the tandem trike (simple wheels, no chairs). Increased “global initial mesh refinement” until results converge.

It is clear that predicted force F , and power P calculated by $P = Fv$ is low by a factor ≈ 3 .



Sideview velocity contour plots

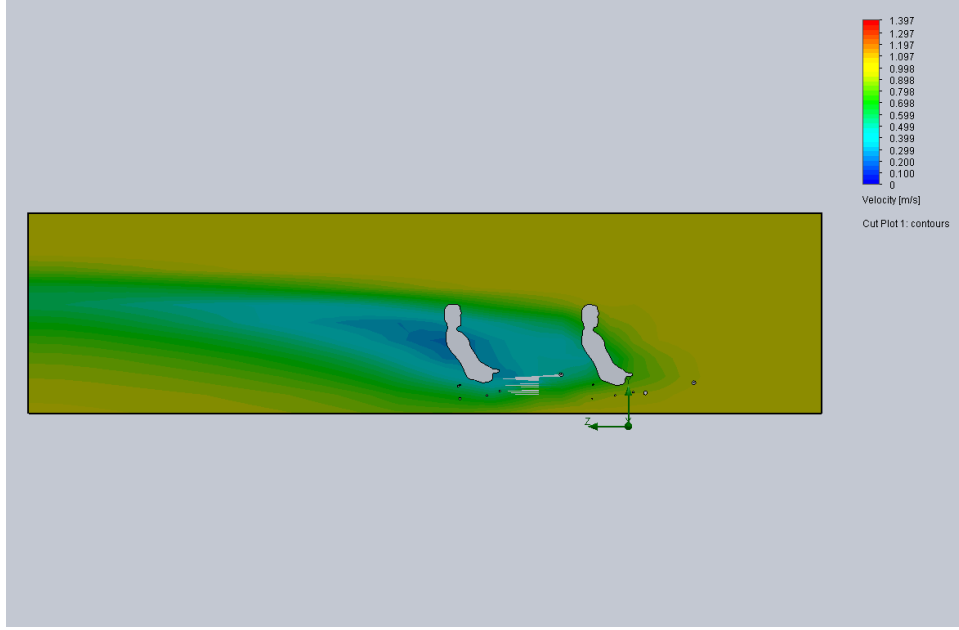


Figure 1: $v = 1m/s$, global initial mesh = 2

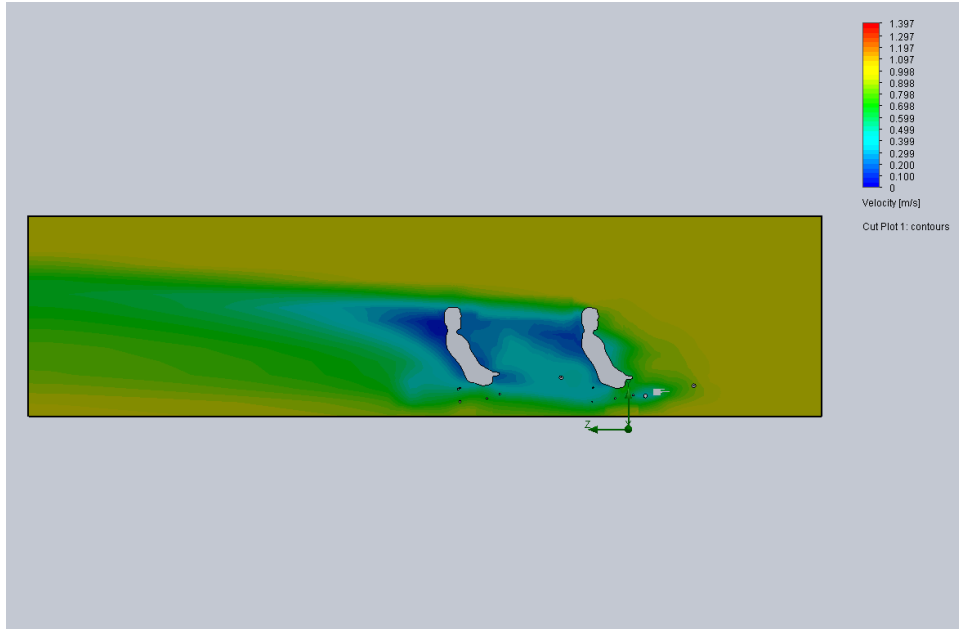


Figure 2: $v = 1m/s$, global initial mesh = 3

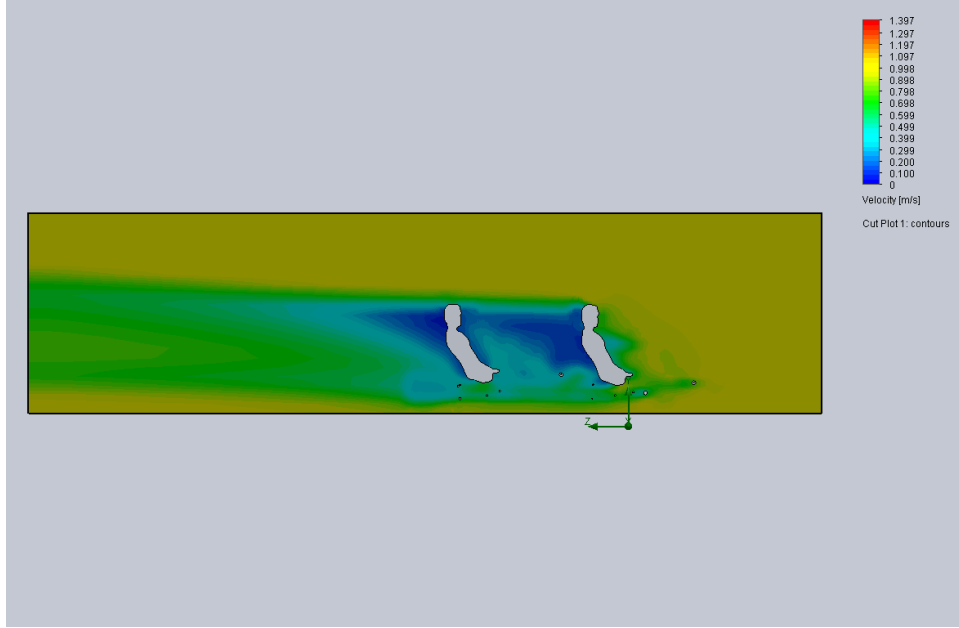


Figure 3: $v = 1m/s$, global initial mesh = 4

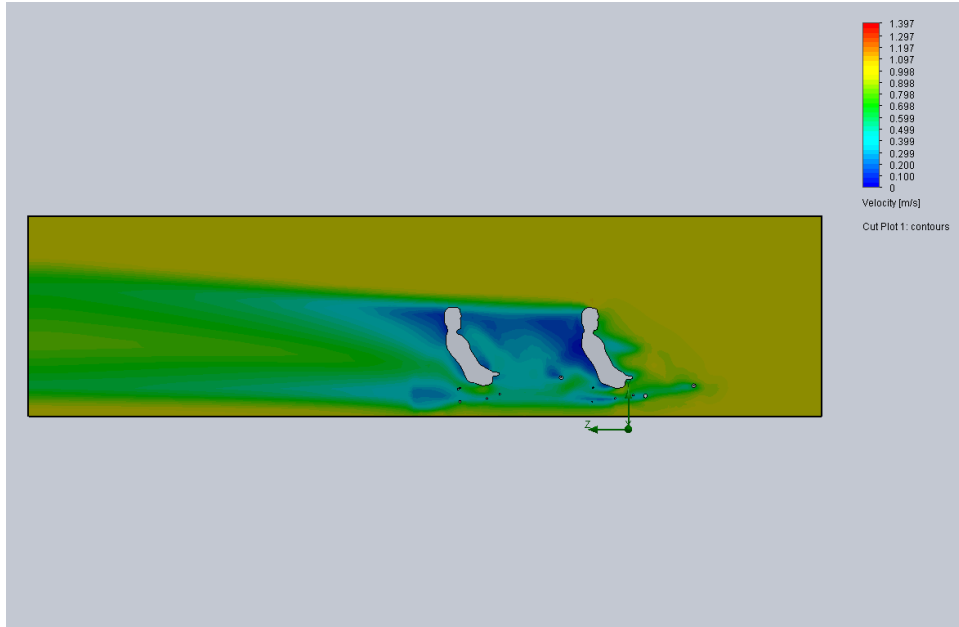


Figure 4: $v = 1m/s$, global initial mesh = 5

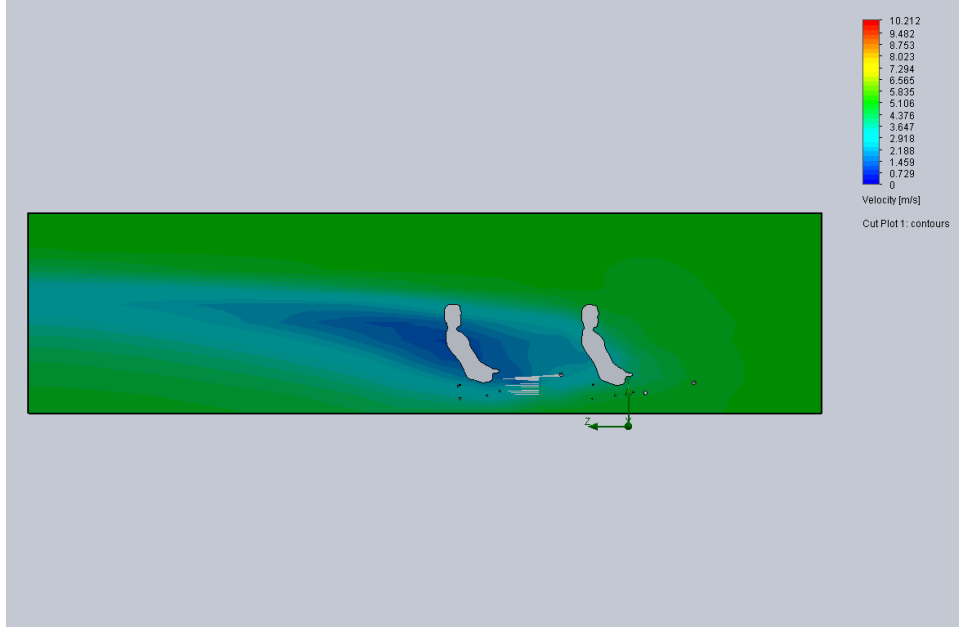


Figure 5: $v = 1m/s$, global initial mesh = 2

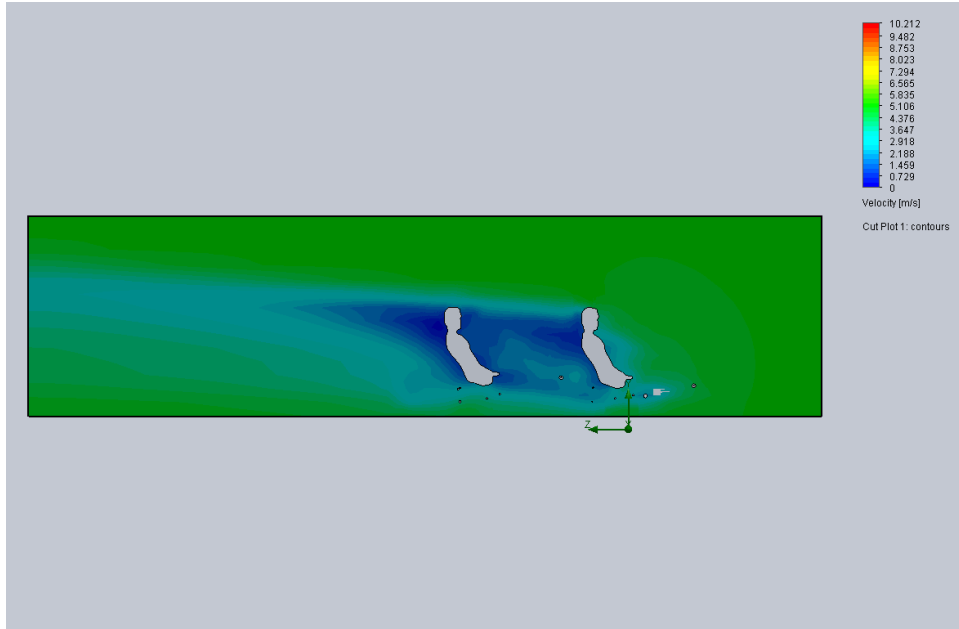


Figure 6: $v = 1m/s$, global initial mesh = 3

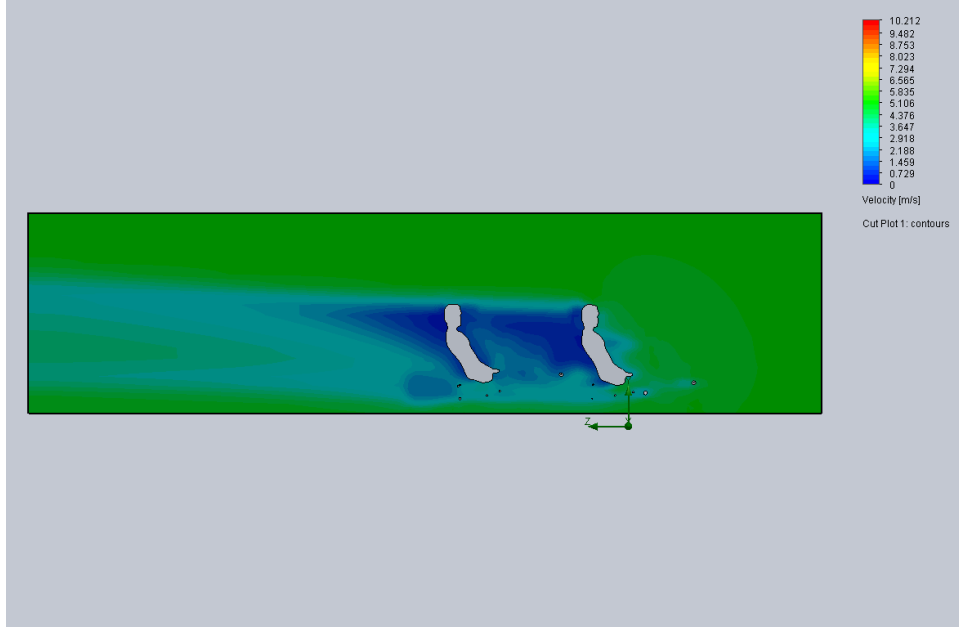


Figure 7: $v = 1 \text{ m/s}$, global initial mesh = 4

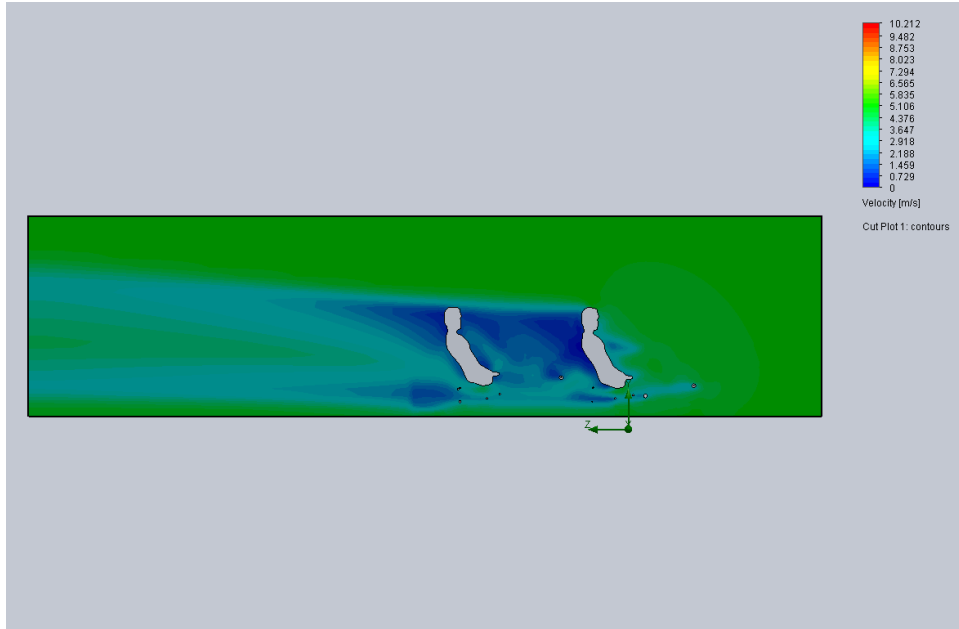


Figure 8: $v = 1 \text{ m/s}$, global initial mesh = 5

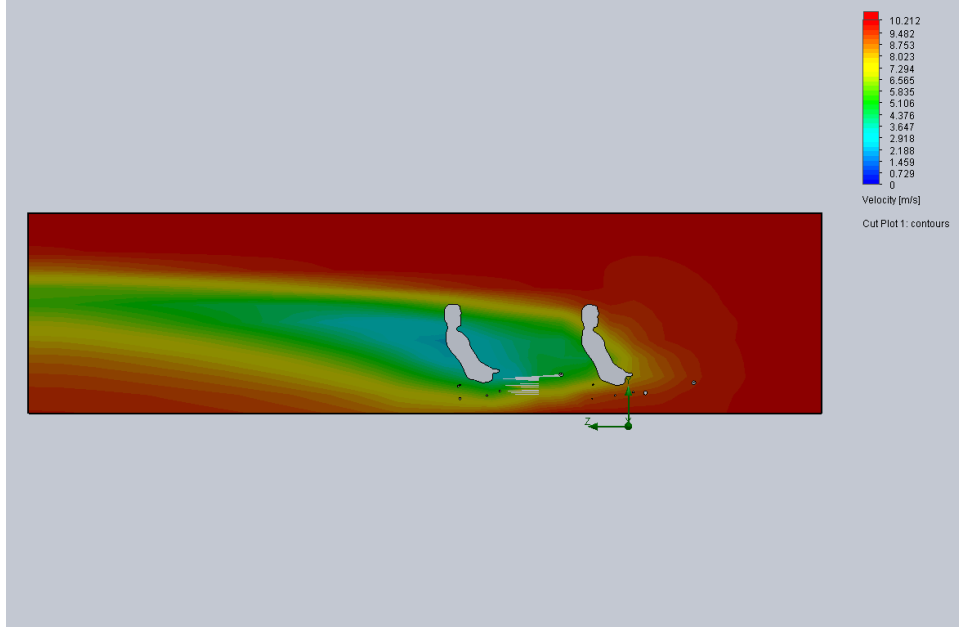


Figure 9: $v = 1m/s$, global initial mesh = 2

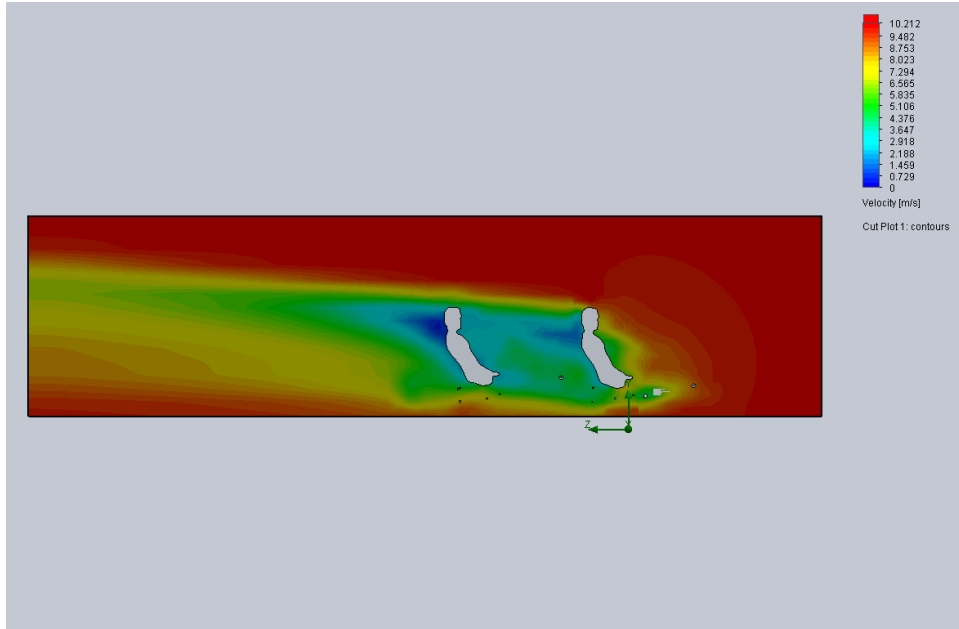


Figure 10: $v = 1m/s$, global initial mesh = 3

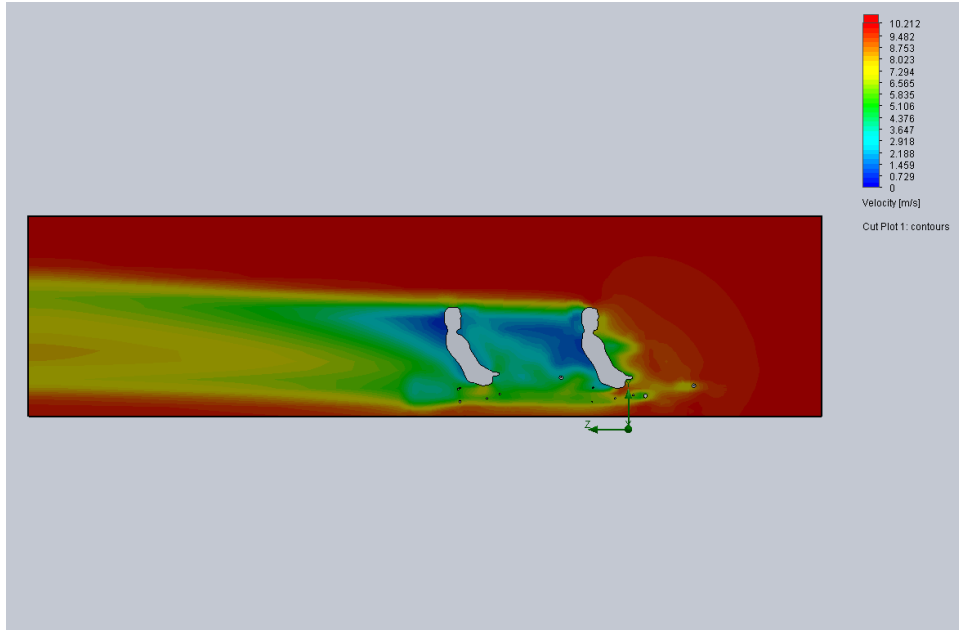


Figure 11: $v = 1m/s$, global initial mesh = 4

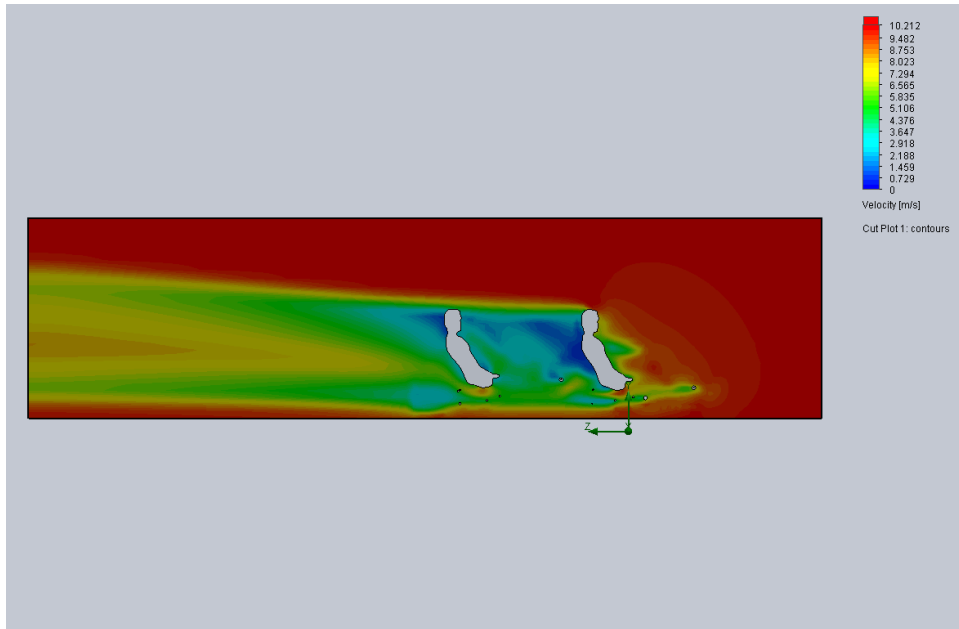


Figure 12: $v = 1m/s$, global initial mesh = 5