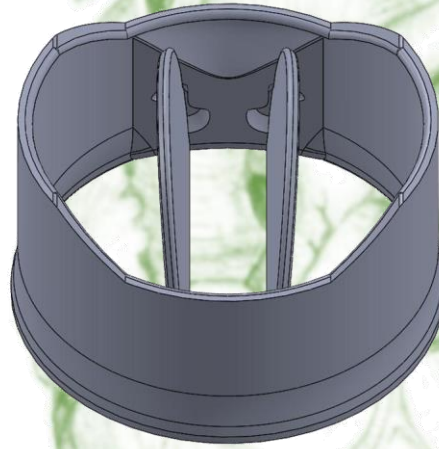
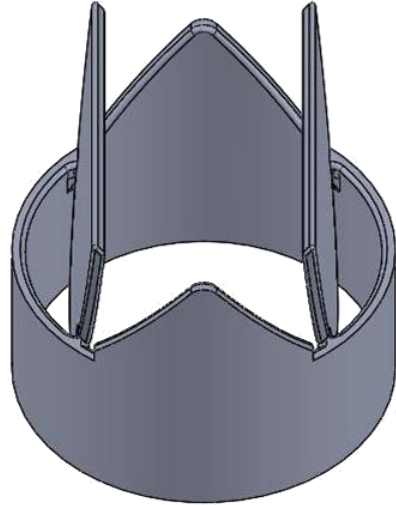
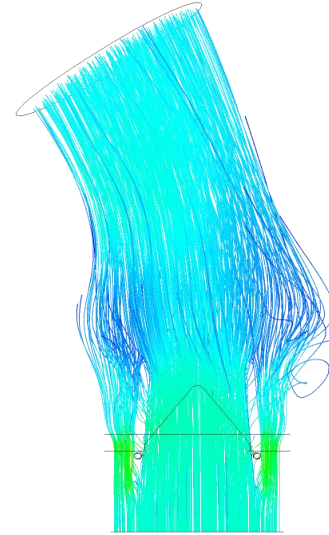


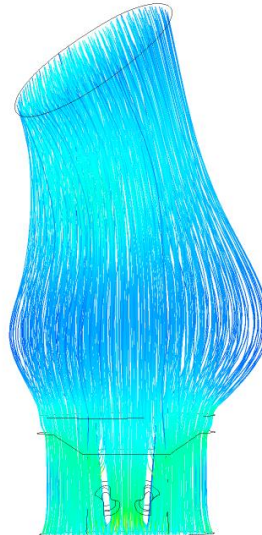
# A Novel Design for Bileaflet Mechanical Heart Valves and its Hemodynamic Performance under Physiological Condition



Velocity  
Streamline 1  
4.000e+000  
3.000e+000  
2.000e+000  
1.000e+000  
0.000e+000  
[m s<sup>-1</sup>]



Velocity  
4.000e+000  
3.000e+000  
2.000e+000  
1.000e+000  
0.000e+000  
[m s<sup>-1</sup>]



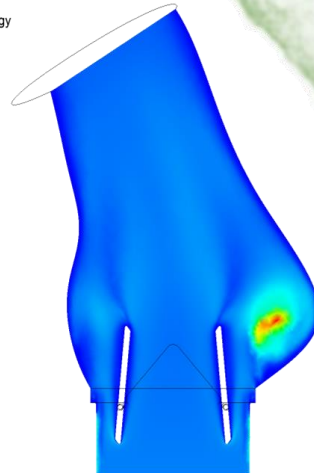
## Benefits:

- Lower pressure gradient
- Larger effective orifice area

## Costs:

- Higher turbulence intensity
- More vortical structure

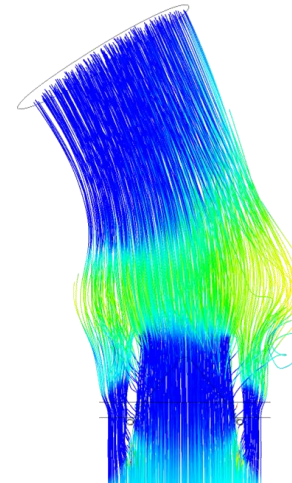
Turbulence Kinetic Energy  
Plane 1  
6.141e-002  
4.605e-002  
3.070e-002  
1.535e-002  
2.459e-007  
[J kg<sup>-1</sup>]



Turbulence Kinetic Energy  
5.000e-002  
3.750e-002  
2.500e-002  
1.250e-002  
0.000e+000  
[J kg<sup>-1</sup>]



Pressure  
Streamline 1  
5.000e+002  
3.750e+002  
2.500e+002  
1.250e+002  
0.000e+000  
[Pa]



Pressure  
5.000e+002  
3.750e+002  
2.500e+002  
1.250e+002  
0.000e+000  
[Pa]

