

**Input parameters:**

wing\_span = 12.0 m  
root\_chord = 5.0 m  
taper\_inner = 0.7  
taper\_outer = 0.5  
kink\_position = 4.0 m  
flap\_gap = 0.5 m  
sweep\_deg = 25.0 deg  
dihedral\_deg = 5.0 deg  
front\_spar = 0.2 x/c  
rear\_spar = 0.7 x/c  
outer\_flap\_lim = 0.7 y/b  
fuselage\_radius = 1.5 m  
clmax = 2.0  
twist = 2.0 deg  
speed = 100.0 m/s  
airfoil\_name = 4415  
flap\_type = Fowler

**Output parameters:**

cl\_max\_airfoil = 0.831  
Delta\_cl\_max = 1.169  
flap\_hinge\_location = 0.72