1125-76-2615 **Paul DeVries***, 31-10 Thomson Ave, room E223N, Long Island City, NY 11101, and **Michael Wiley**. *Calculating Lift and Drag Force for Airfoils.* Preliminary report.

In the study of aerodynamics, an airfoil can be described as any curved structure to designed to optimize the lifting force and drag force acting upon it. Drag is the force of wind resistance acting upon an object and the lifting force is a force generated by the airfoil that counteracts the object's weight. Based on the airfoil's geometry, it is possible to calculate these two forces using calculus. Early work on this field has been mainly centered on airplane wings, but it has since been applied to wind turbine design which utilizes both drag and lift to its advantage. (Received September 20, 2016)