```matlab
function [thrust] = ThrustSLUFFunc(rho, vel, area, cD0, spanEfficiency, mass)

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%
% Author: Preston Wright, Hudson Reynolds
% Description: function that finds the thrust at SLUF for given conditions
% and outputs the calculated thrust
%
% Inputs:
% area - wing / reference area [m^2]
% rho - density of air [kg/m^3]
% cD0 - coefficient of drag at zero AoA
% vel - velocity [m/s]
% mass - mass of aircraft [kg]
%
% Outputs:
% thrust - calculated thrust for given inputs
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%
```

Initializations

```matlab
g = 9.81;
```

Calculations

```matlab
thrust = ((1/2) * rho * vel^2 * area * cD0) + ...
    2 * spanEfficiency * ((mass * g)^2/(rho * area * vel^2));
```

Not enough input arguments.

Error in ThrustSLUFFunc (line 22)
thrust = ((1/2) * rho * vel^2 * area * cD0) + ...

Published with MATLAB® R2023b