

```
function range = range(aircraft,LtoD,v)
% RANGE Computes the range when flying at a constant altitude.
%   Inputs are:
%   aircraft   :a struct aircraft data in SI
%   LtoD       :a numeric array of Mx1 lift to drag ratio
%   v         :a numeric array of Mx1 cruise speed in m/s
%
%   Output is:
%   range      :a numeric array of Mx1 range in m

arguments
    aircraft {mustBeA(aircraft,"struct")}
    LtoD (:,1) {mustBeNumeric, mustBeReal}
    v (:,1) {mustBeNumeric, mustBeReal}
end

TSFC = aircraft.TSFC;
Wwet = aircraft.W;
Wdry = aircraft.W-aircraft.W_fuel;

range = (v./TSFC).*LtoD.*log(Wwet./Wdry);
end
```