**thrust\_controller**

***Calling Syntax***

edl\_system = thrust\_controller(edl\_system,planet)

***Description***

The function thrust\_controller implements a Proportional-Integral-Derivative (PID) speed Controller to modify the amount of rocket thrust necessary to achieve a desired EDL velocity/position. Additionally, this function applies constraints to the modelled output thrust when reaching the minimum and maximum thrust capabilities of the EDL system.

***Input Arguments***

edl\_system struct Data structure containing EDL system definition

planet struct Data structure containing planet definition

***Output Arguments***

edl\_system struct Data structure containing EDL system definition, with updated

thrust outputs for the EDL system during the powered descent

phase