

Calculate initial  
matter in chambers

Add single timestep  
worth of oxidizer

Calculate increased  
pressure

Decompose injected  
material

Calculate  $T$ ,  $P$ ,  $v_e$   
Calculate mass of  
materials exiting

no  
Is  $T > T_{\text{auto}}$ ?

yes

Initiate combustion  
using all  $\text{O}_2$  inside

Calculate  $T$ ,  $P$ ,  $v_e$   
Calculate mass of  
materials exiting