

How to use PROPELcalc

(it is quite easy)

First, Select your combustion cycle

Select your combustion cycle

Full flow stage combustion
Expander cycle
Electric motor
Gas generator cycle
Staged cycle

Then select your propellant type.

Select propellant type

If your propellant type isn't available. The simulation will be run by the parameters entered by the user

ENSURE ALL UNITS ARE SI UNITS

lh2/lox
lng/lox
rp-1/lox
monomethyl hydrazine/nitrogen tetroxide

Then fill up your parameter such as specific heat ratios, specific gas constants, and ETC.

enter specific heat ratio

enter combustion temp

enter combustion pressure

enter specific gas content

enter expansion ratio

enter mass flow rate

enter nozzle exit pressure


enter oxidizer to fuel ratio

enter thrust

gravity at altitude

Finally, you can run and save your simulation !

Simulation results:

Run Simulation 

Save Results 

Thank you for listening!

We hope you have a GREAT time using
PROPELcalc.