# Welcome! Your challenge is to make each rocket go as high as possible.

<https://www.sciencelearn.org.nz/embeds/25-rocket-launch-simulation>



**For each rocket, note the settings and maximum height you achieve.**

## Mass

Mass is measured in kilograms. A rocket with more mass will not accelerate as quickly but will also not be as affected by drag.

## Thrust

Thrust is the upwards force. The amount of thrust affects how much the rocket will speed up.

## Time of thrust

If thrust acts for a longer time, the rocket will speed up more.

## Drag

Drag is the opposing force of air resistance. There is more drag at faster speeds.

## Mass change

As the rocket fuel reacts and is propelled from the rocket, the rocket becomes lighter.

Use the table below to document the simulations you run and the height achieved.

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| --- | --- | --- | --- | --- | --- |
| Mass | Thrust | Time of Thrust | Drag | Mass Change | Height Achieved |
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