

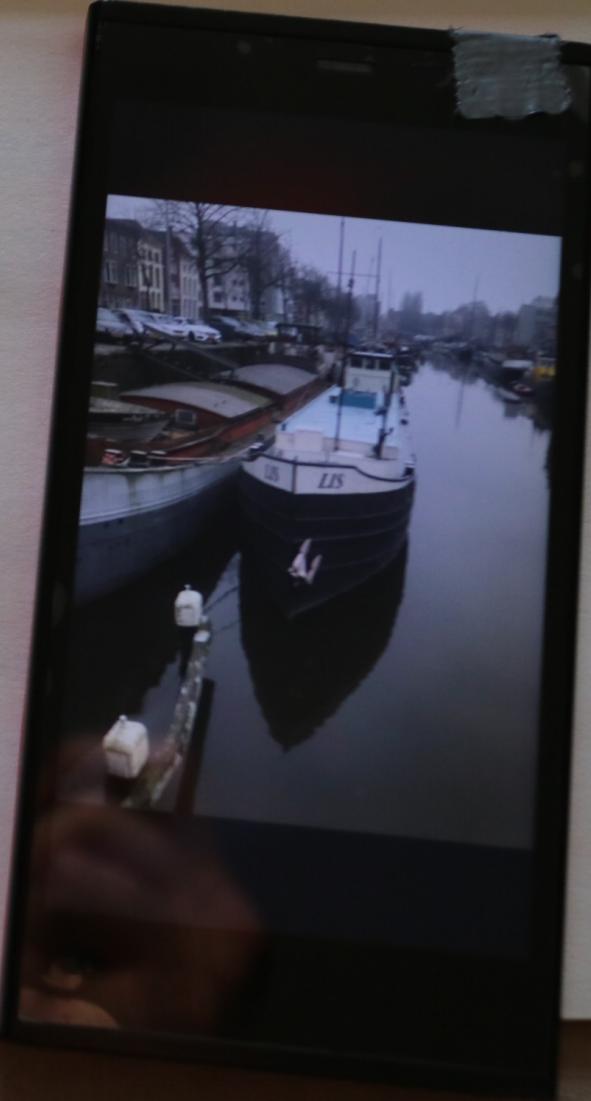
The joy
of
simulating forces

Enthusiasticon 2018

lislis

Hi, I'm Lisca!

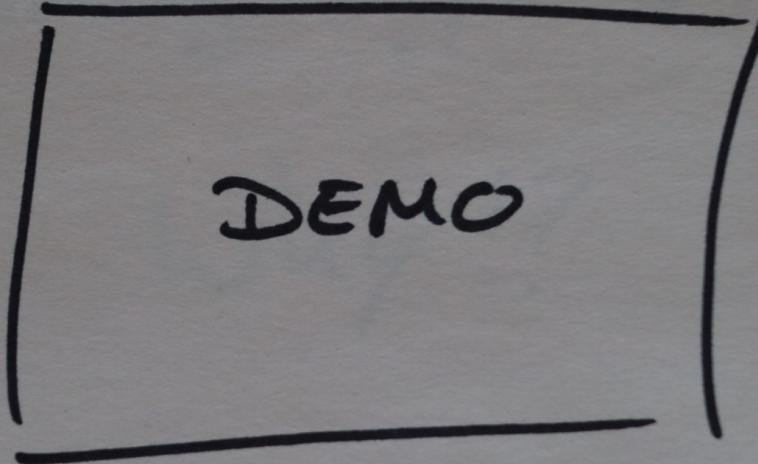
Lislis on GitHub
and me as a
boat →



In school, I was pretty
average in MATH and
PHYSICS.

It was only when I got
into creative coding
that I learned they can
be FUN.

So, let's have
some fun with
FORCES!



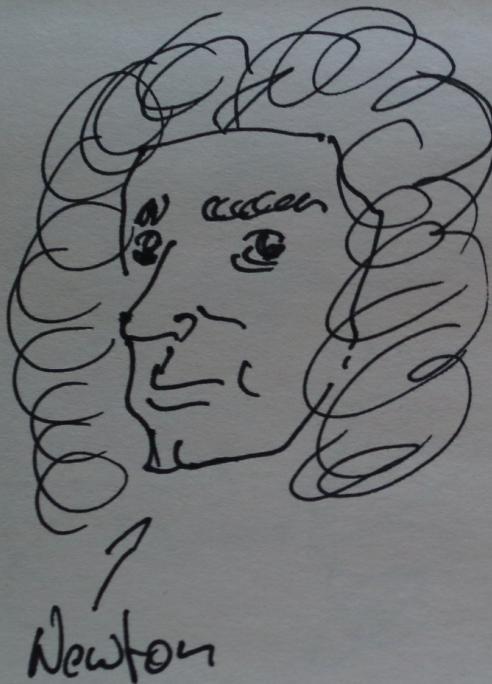
DEMO



↑
Newton

1st Law

An object either remains at rest or continues moving at a constant velocity, unless acted upon by a force.



3rd Law

For every action
there is an
equal and opposite
reaction.

2nd Law

Force equals
mass times
acceleration.



Newton

Friction

$$F = -\mu N \hat{v}$$

Drag Force

$$F_d = -\frac{1}{2} \rho v^2 A C_d \hat{v}$$

Gravitational Attraction

$$F = \frac{G m_1 m_2}{r^2} \hat{r}$$

Have fun and enjoy forces!
Thank you!

<https://github.com/lislis/joy-of-forces/>