Forging with a handhammer

Some ideas how it could work

Ideas on:

- Weight and length

- Control and balance

- Speed and frequency

Weight and length

Kinetic energy

$$E_k = ½ mv^2$$

m = weight of hammer
v = velocity/speed of hammer

Velocity is squared

Control and balance

Light hammer → high velocity → loose cannon
Heavy hammer → less velocity → steady trajectory

Handle length increases → control decreases

Control and balance

Thumb on top → bad idea

Control and balance

Mass close to handle → stable

Speed and frequency
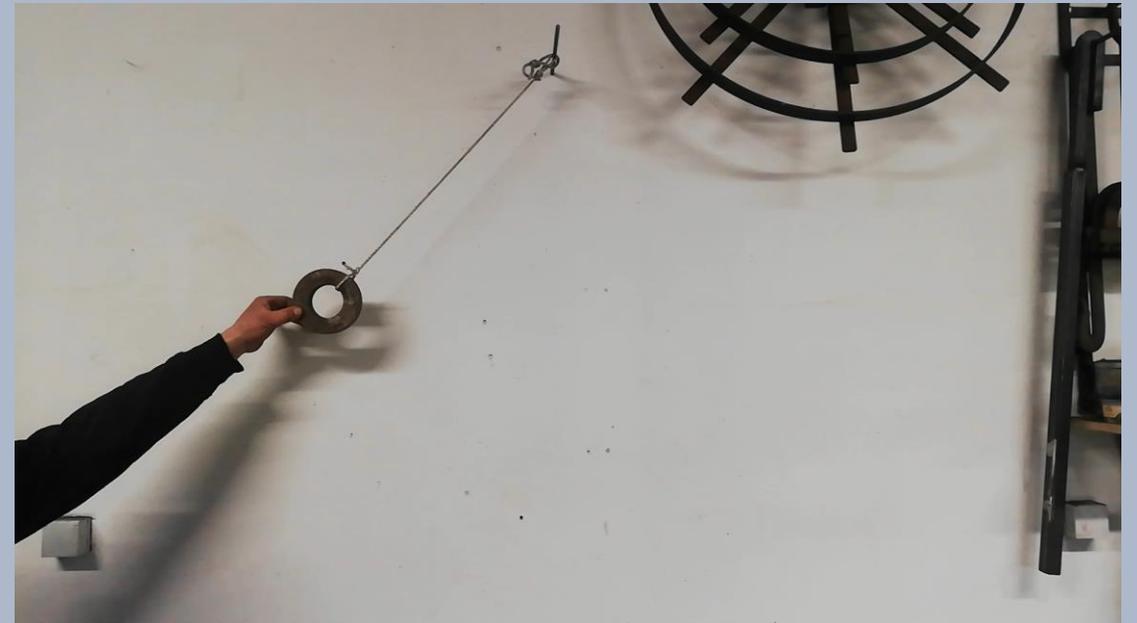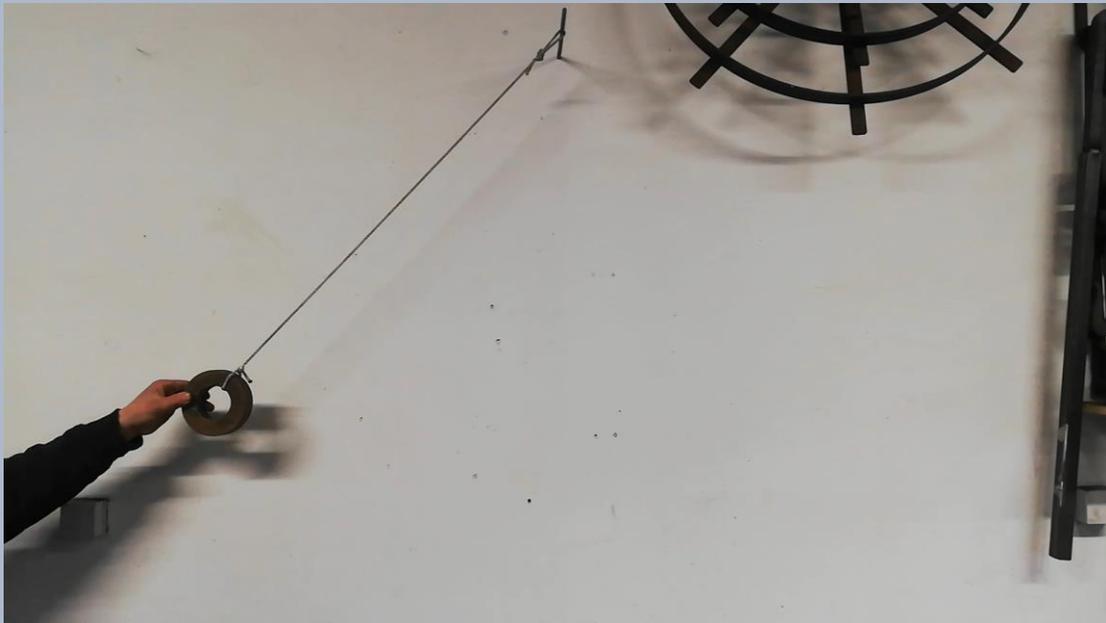
Speed ≠ frequency

Optimal frequency

Pendulum

Speed and frequency

Decrease length
→ increase frequency
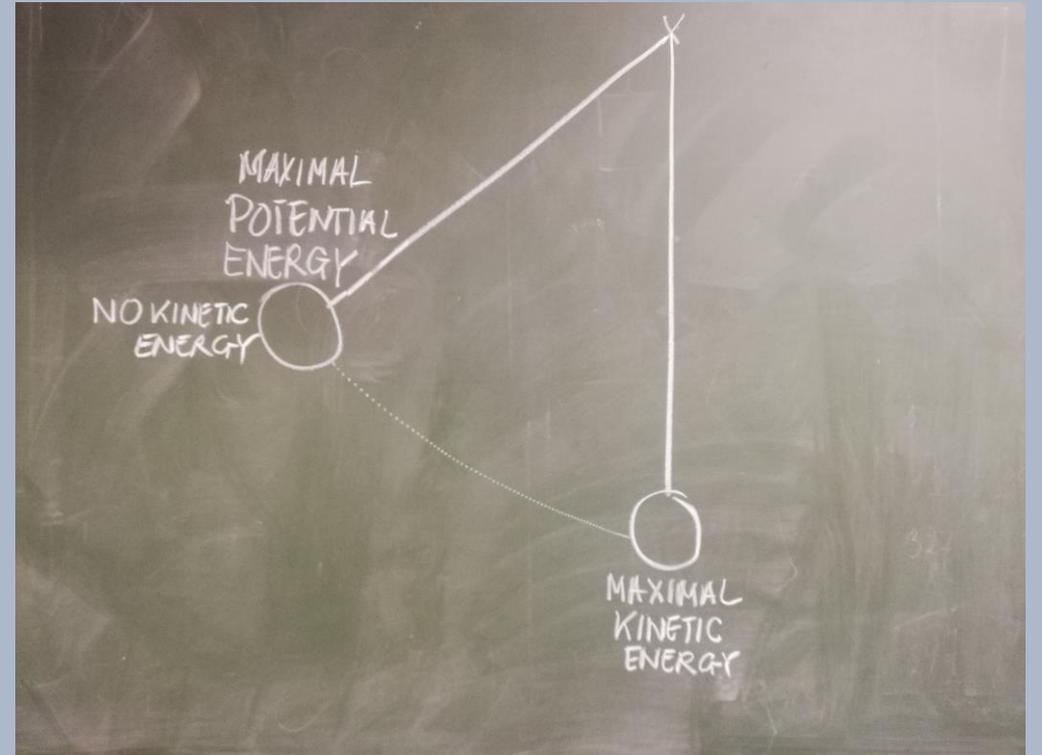
Speed and frequency

Top of swing
→ highest potential energy
    & no kinetic energy
Centerpoint
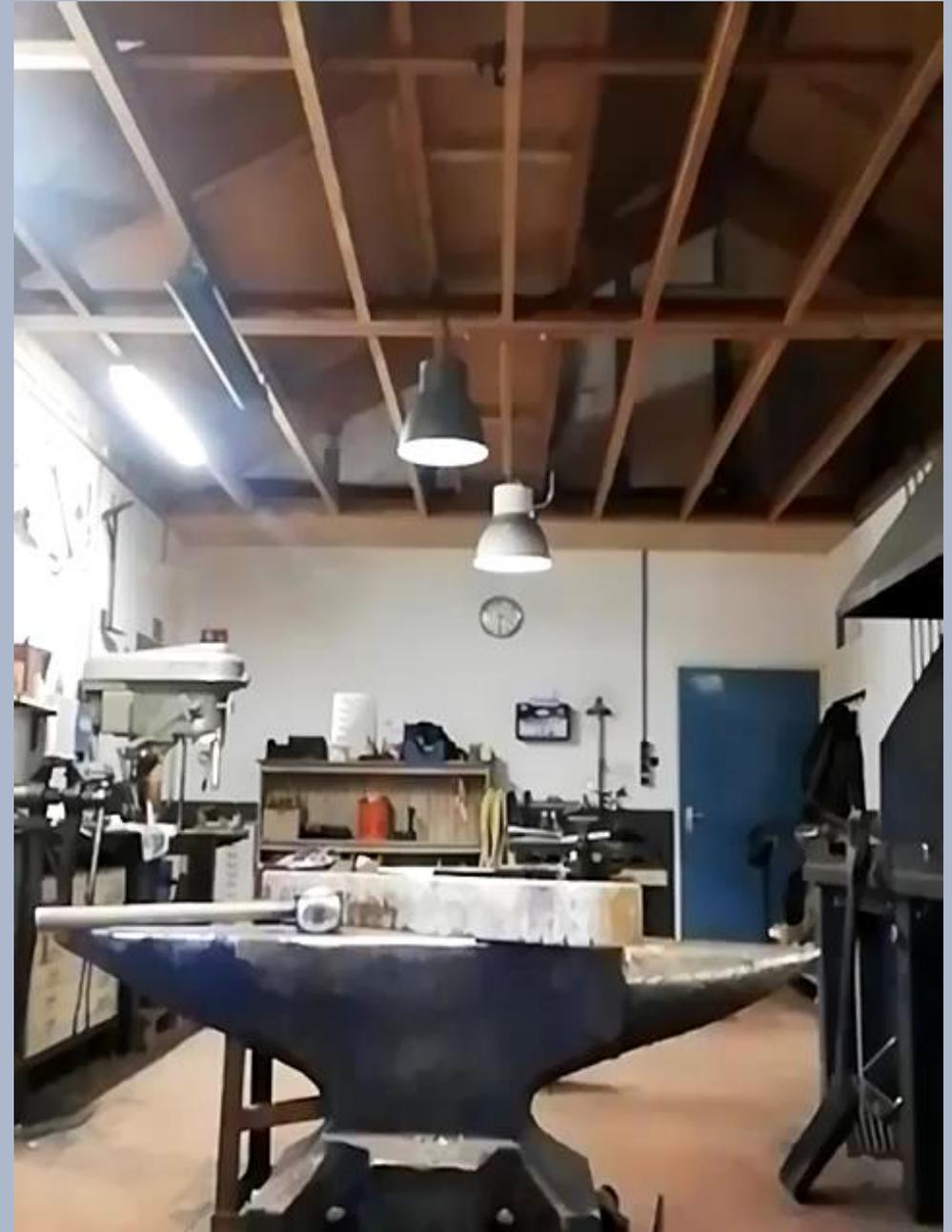→ maximal kinetic energy

Add energy on downstroke

Speed and frequency

Optimal frequency

Dancing hammer

Most effect – least effort

My wishes

Start thinking

Share thoughts and ideas

- Your body is the most important tool in your toolbox -

Thank you!