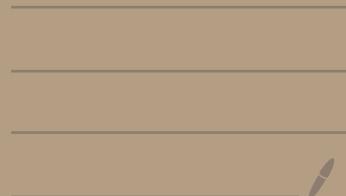
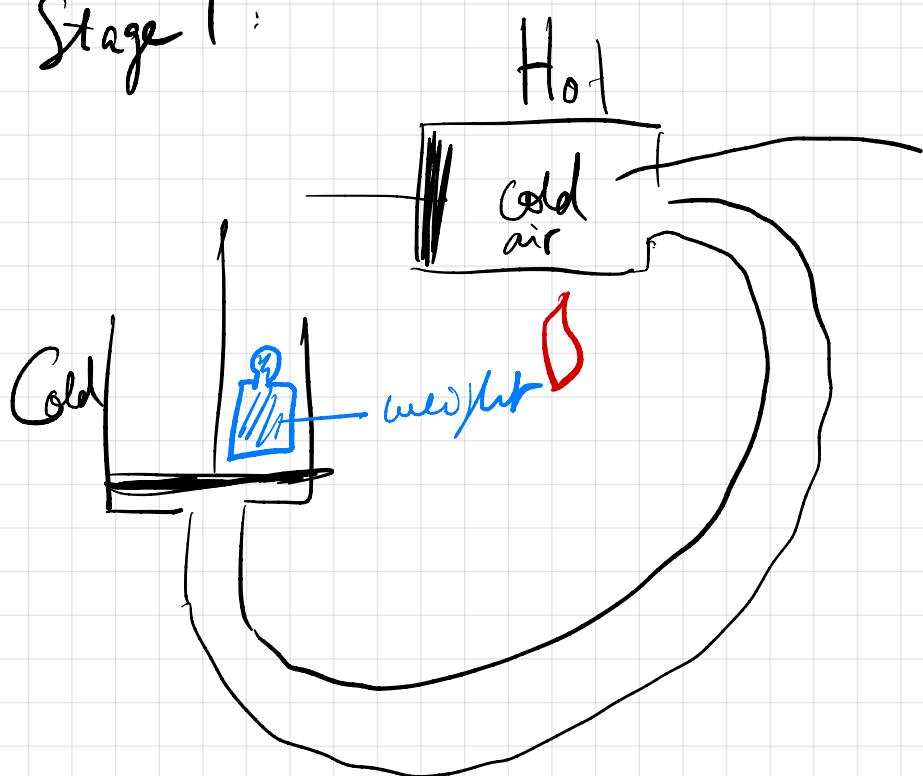


Stirling engine



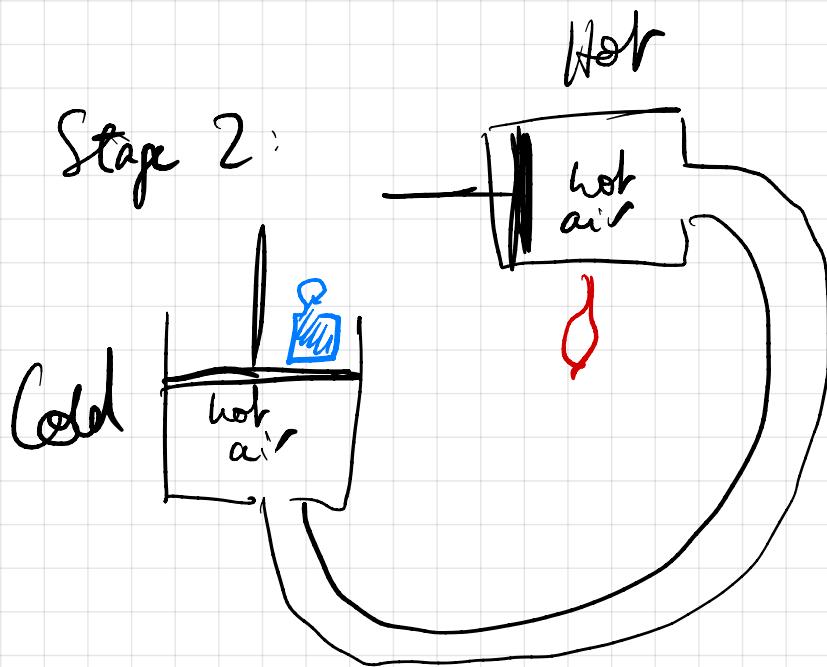
This is an extreme idealization to make the process understandable

Stage 1:



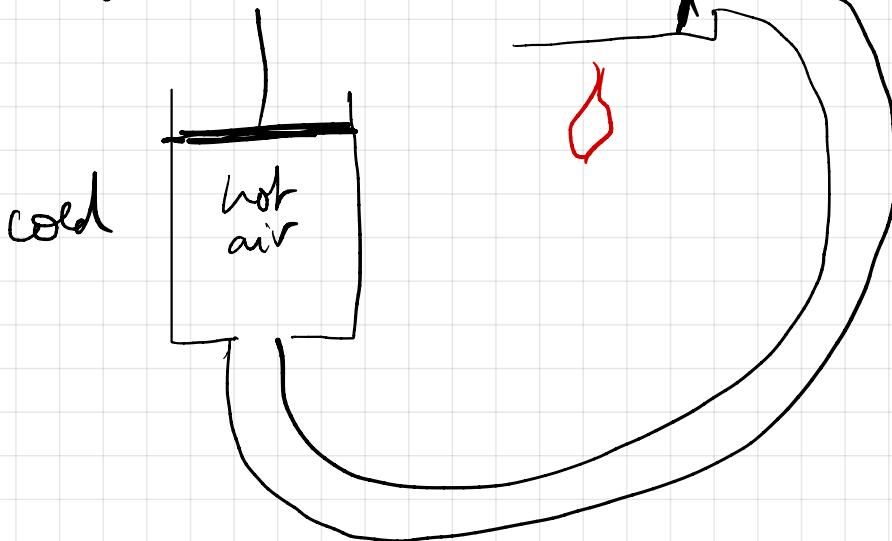
old air
warms up
and pushes
out the "Cold"
piston + atmosphere
+ weight
energy
can be stored

Stage 2:



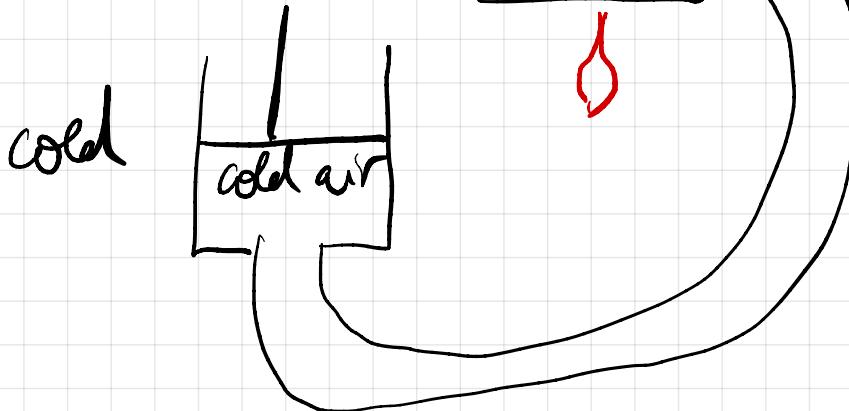
- remove the weight now slowly, isothermally, then the system pushes through the rest of the hot air
- no energy spent here

Stage 3:



the hot air cools down, atmosphere performs work on the system

Stage 4:



the spinning wheel now pushes through the cold air

no energy spent

Repeat.

