









# **HEAT PIPES AND THE PELTIER EFFECT**

**YUVAL, SHACHAR AND NEOMI**



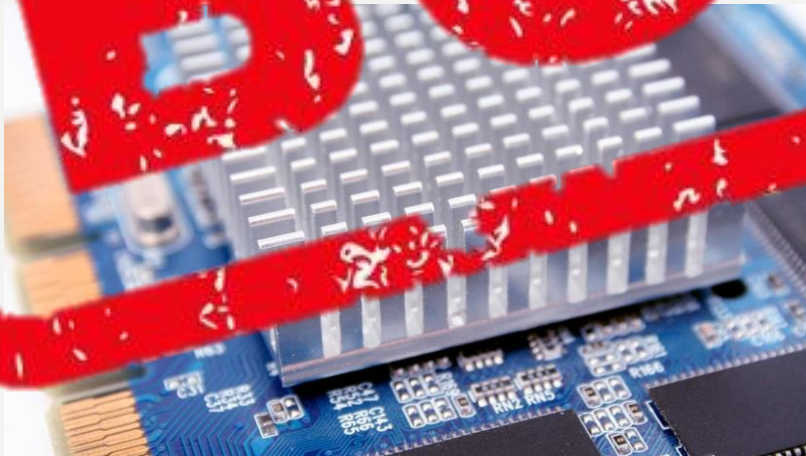
# THE PROBLEM

- high frequency
- high voltage
- heat is created
- the efficiency is reduced
- The heat also damages the electronics.



# CONVENTIONAL COOLING METHODS

- Heat Sink
- Fan
- Water Coolers



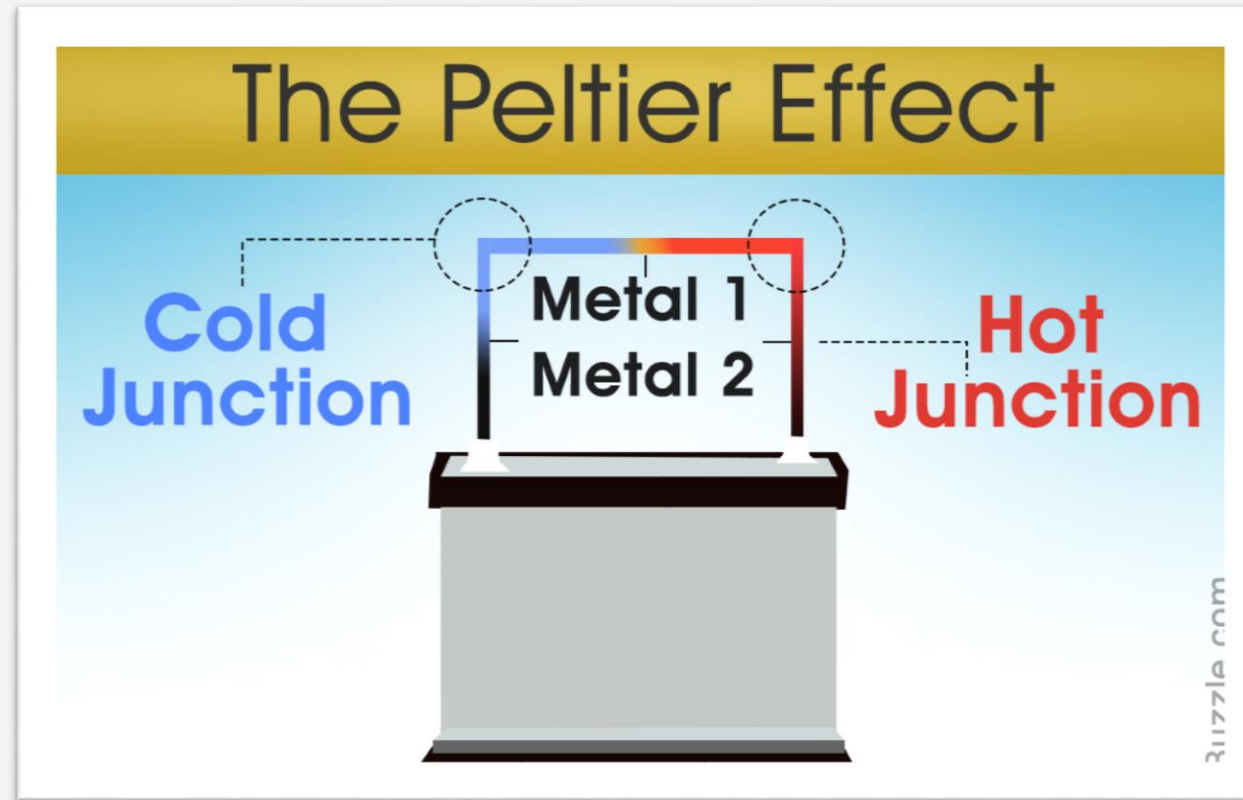


# UNCONVENTIONAL COOLING METHODS

- Heat Pipe
- Peltier Effect

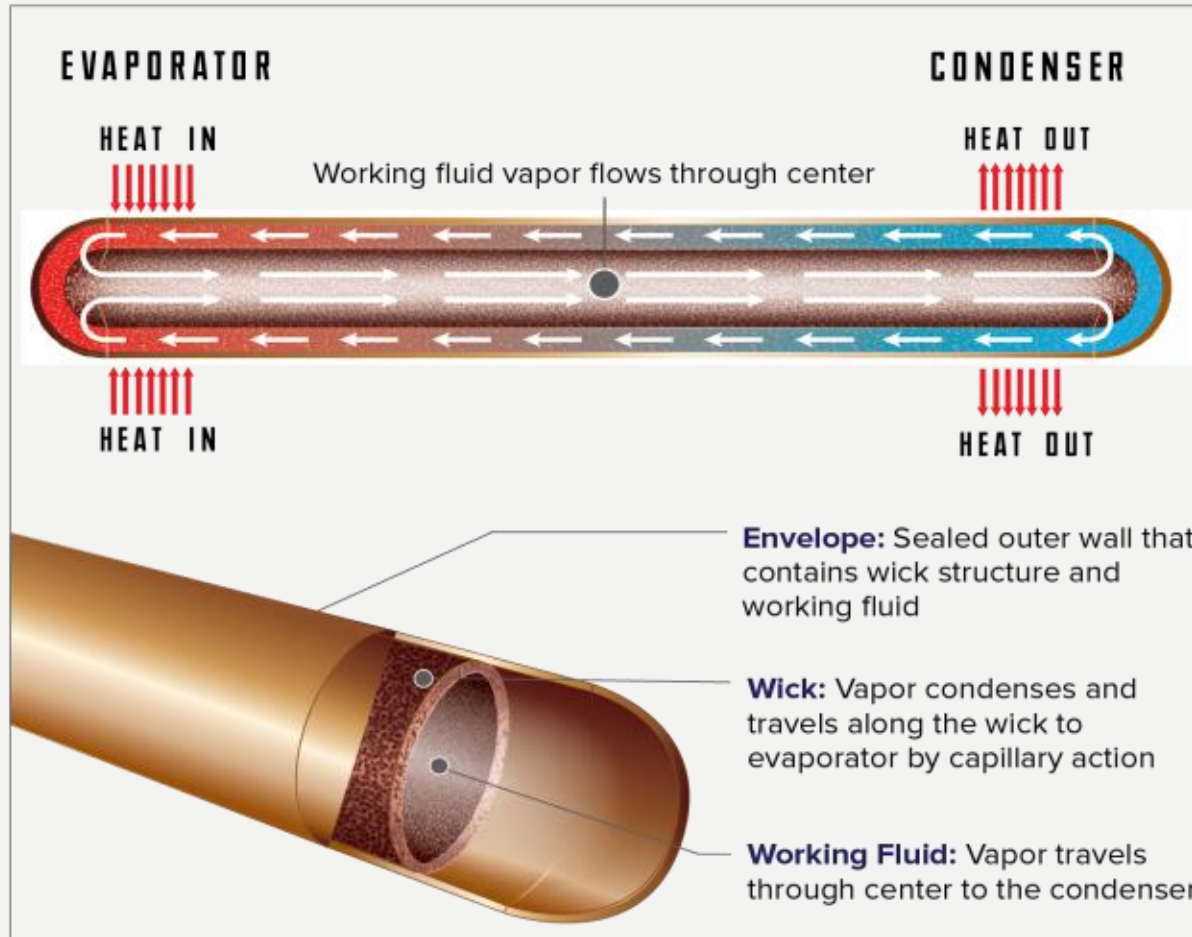


# THE PELTIER EFFECT





# HEAT PIPES





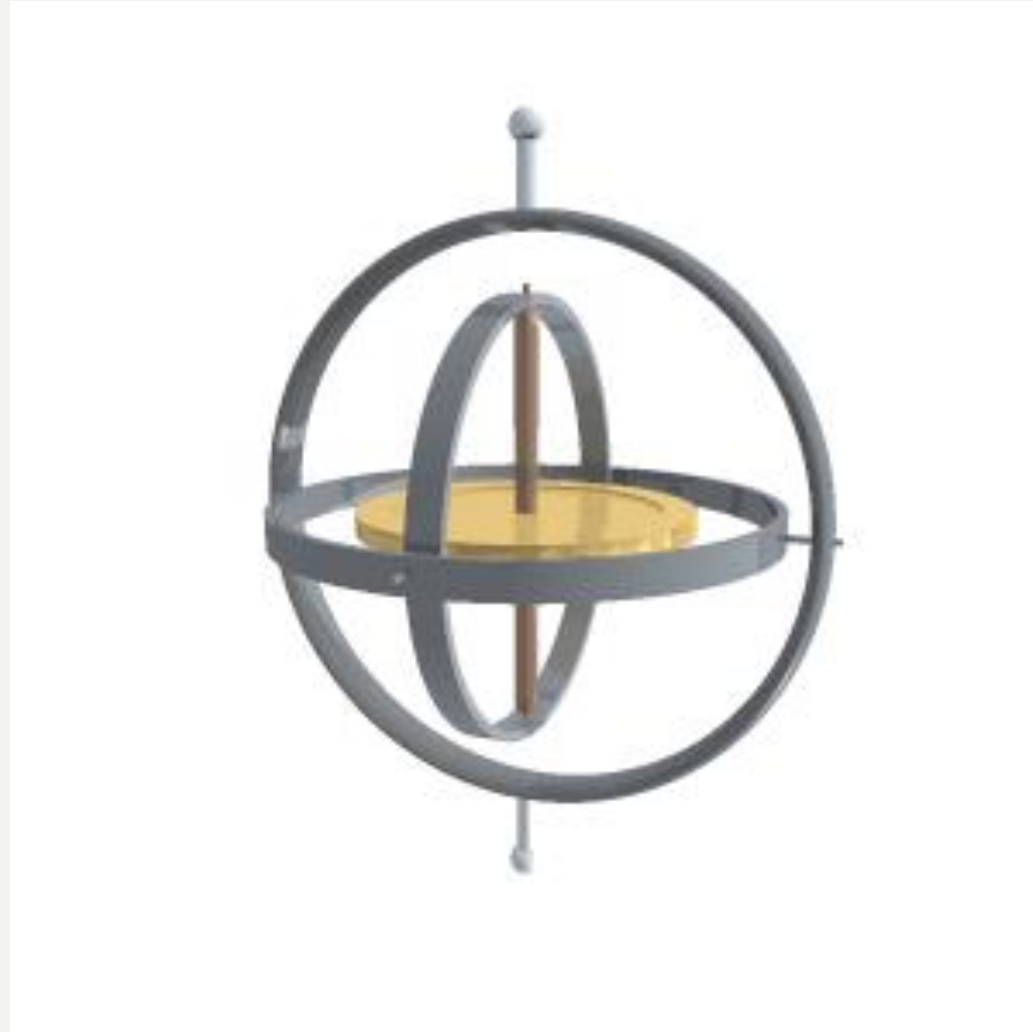
# APPLICATION



- Flexible Heat Pipes
- Local Cooling
- Cooling using the liquid helium from the LHC



# THE NEXT STEP...







**THANK YOU FOR LISTENING**