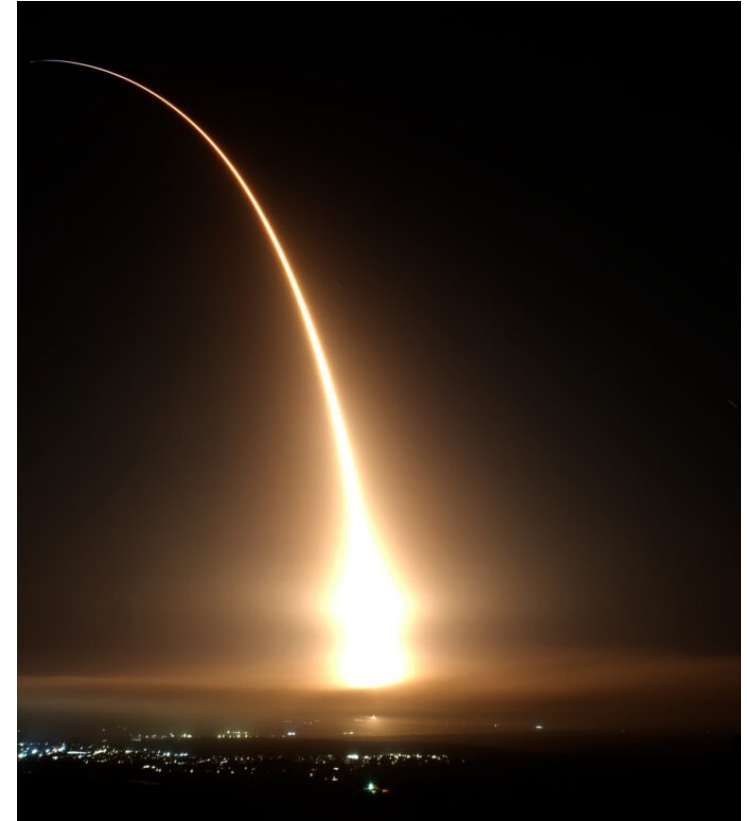IT UNIVERSITY OF COPENHAGEN

Shipping up to Space

Robert Bayer

HPTS, Gong show

16th September 2024

RAD
rad.itu.dk

IT UNIVERSITY OF COPENHAGEN
itu.dk

DASYA
Data-Intensive Systems and Applications
dasya.itu.dk

novo
nordisk
fonden

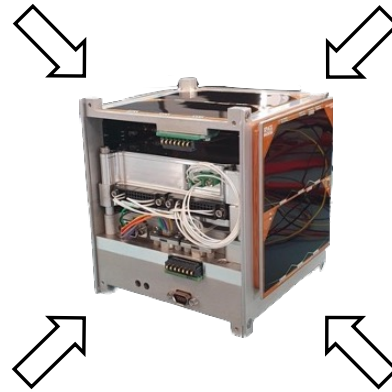# DISCO: Danish Student CubeSat Organization

Small Satellites

Benefits

Compromises

$$
Shrinking
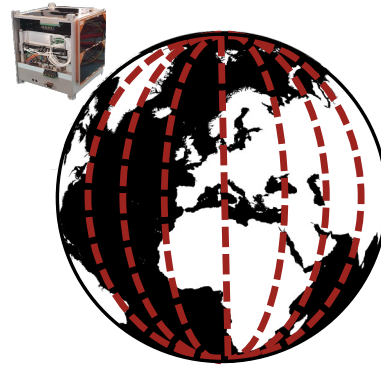+
Standardization

$$

$
\Downarrow
$

$

Reduced cost

Reduced Power Generation

Problem

Can transfer MAX
49.1 images/day

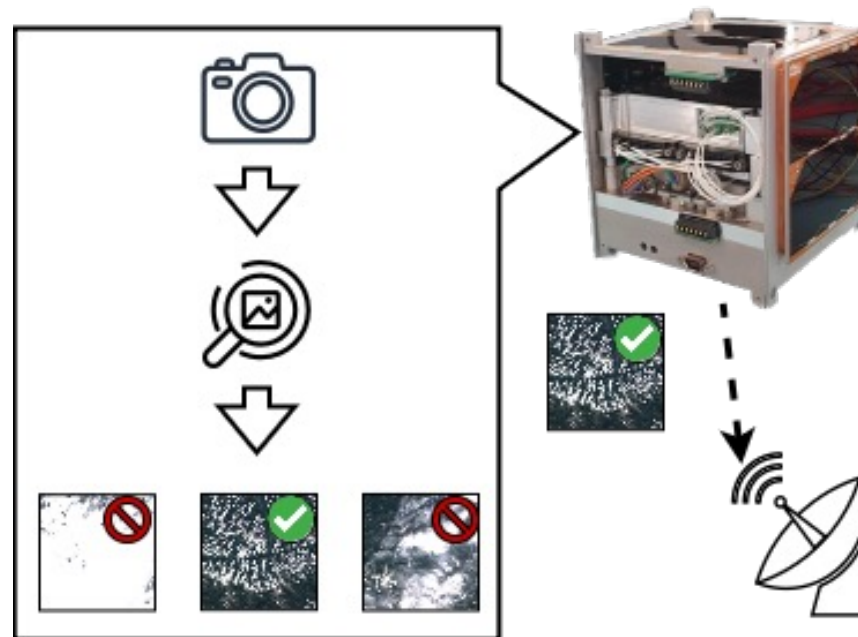Real-time imaging
4.42 s latency
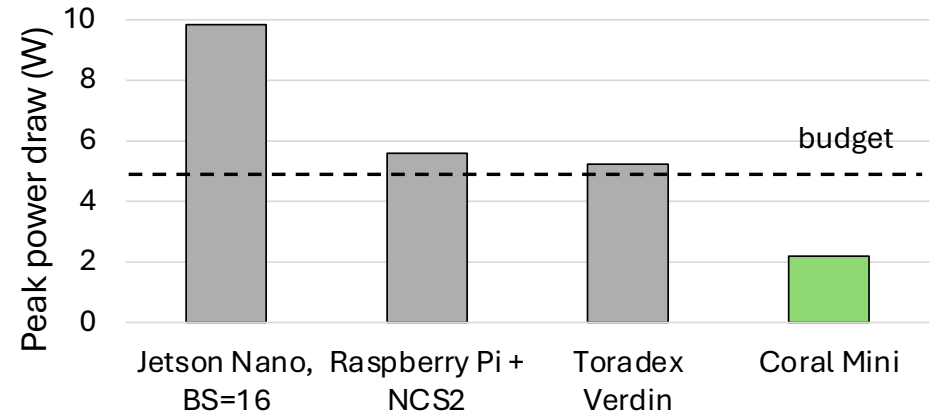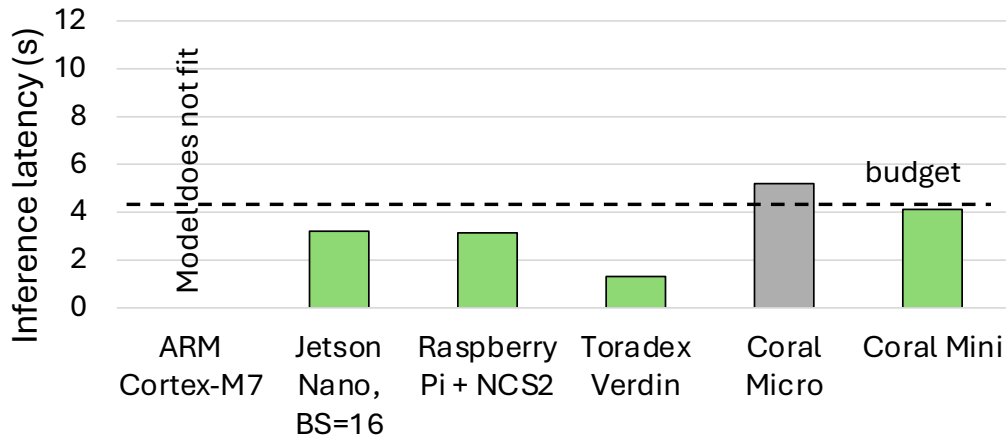
19,547 images
captured / day

<5W
MAX

<2W
AVG

Solution - Machine Learning

Our goal: Determine the right edge device
to deploy on the satellite for this task.

Results

Coral Mini best candidate!

Coral Dev Board Mini launched onboard DISCO1 in April 2023