

# Challenges of data logging in Arctic conditions

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- Unique environmental conditions
  - Rapid temperature fluctuation
  - High humidity
  - Water damage due to melting snow/ice
  - Physical impact due to fall of ice chunks
  - Remote locations
- Prohibitively expensive commercial solutions
- Vendor lock-in



Photo credit: Tele Greenland



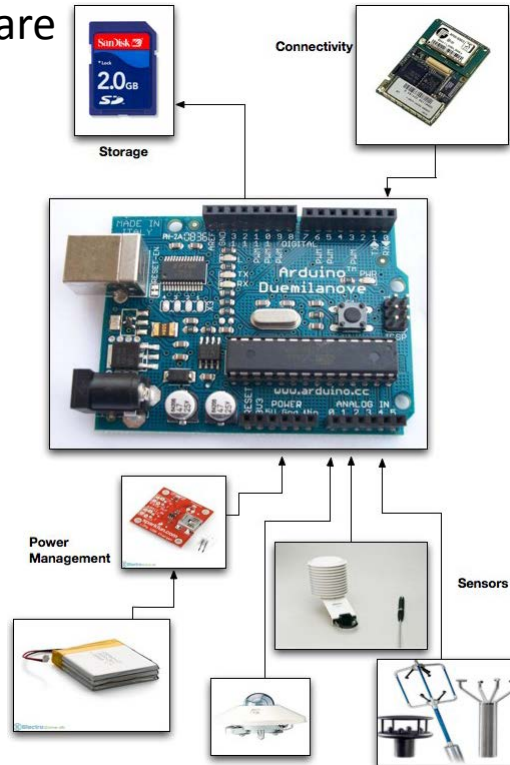
*Why?*

How?

What?

Future plans?

- Two years of experience in field
  - Two locations in South Greenland
- In collaboration with the Technical University of Denmark
- Utilizing the power of open source communities
- Focus on both hardware and software
- Highly customized solution



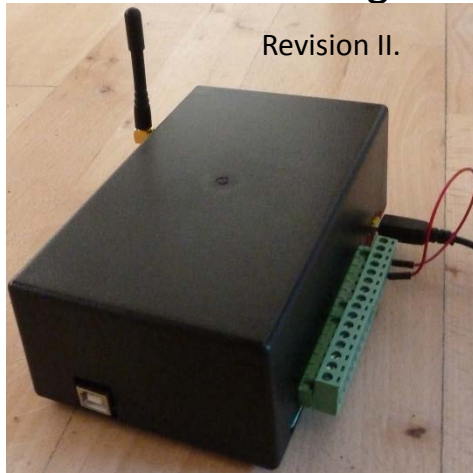
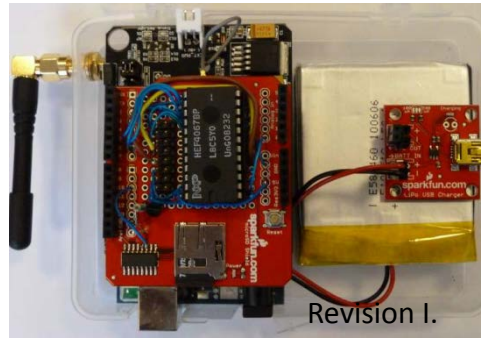
Why?

How?

What?

Future plans?

- New device designed from ground up
- Optimized for:
  - Power consumption
  - Reliability
  - Ease of use
  - Harsh environment
- Smaller than commonly used data loggers
- Reasonably prized
- Remote monitoring and real time communication



Why?

How?

*What?*

Future plans?

- Looking for further testing in field
- Possible cooperation with universities and companies
- Creation of a Revision IV. Based on experiences and new features, such as:
  - Wireless sensor modules
  - Remote software updates
  - Even longer battery life



Why?

How?

What?

*Future plans?*

Thank you very much for your attention!

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