Sensors and software protocol

# Under-ice transects

### Ocean View STS-VIS

### VNC Team/Tight

### MSDA\_XE TriOS RAMSES

### iSpy Low-Light cam

### SONY Remote Camera control

### LUMO Recorder

### Setup view

* Establish connection with LUMO software from above surface using remote control.
* Establish connection of KESTREL sensor in LUMO recorder.
* Establish connection with GPS/IMU. Use custom made .ssp file.
* Load calibration pack. (.scp).
* Select folder & set name for transect.

### Adjust view

* Define camera trigger mode. (External or internal what would be the setting for our particular case with the custom made IMU?).
* Wait until temperature stabilizes (green colour. Orange too low, red too high)
* Image correction parameters. Set ENABLE-TRUE for real-time visualization of corrected images.
* Dark subtraction set in shutter mode (average of a 100 lines).
* Assess scanning speed, fps, integration times and binning over the first 2 meters using circular targets placed under the ice and based on calculations in order to maximize signal.

### Capture view

1. Set image + dark workflow.
2. Set to record metadata.
3. Start capture button when everything is set-up and keep constant scanning.
4. Once an image transect has been completed, upload data to surface.

### Eclipse IMU

### VN100 Software (optional)

# Ice core scanning

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