TEC-V

MILESTONE 1

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CLIENT

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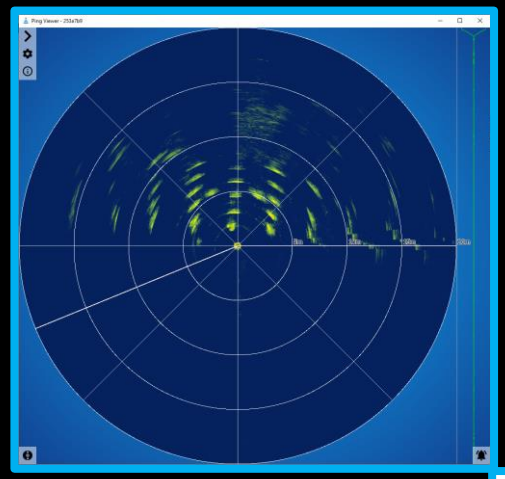
MILESTONE 1 OVERVIEW

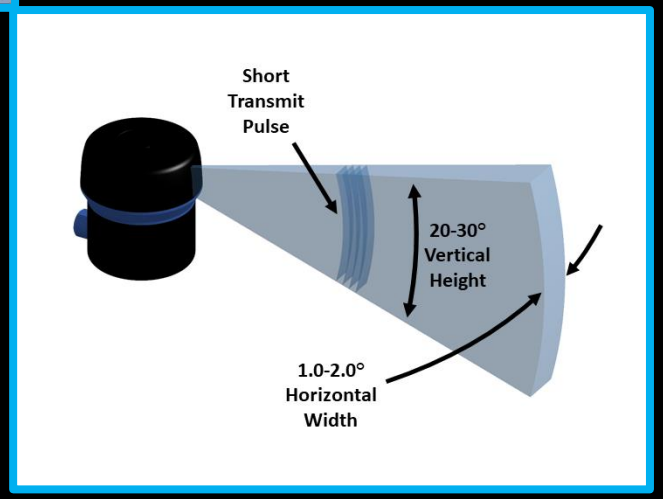
- Sonar Types
- Data Saving
- Scanning Sequence
- Cloud Plotting

SONAR DEVICES

Ping 360

- Reliable imaging
- 360% degree
- 15% Cone
- Detailed Imaging – False
- Data Transcription - Unknown

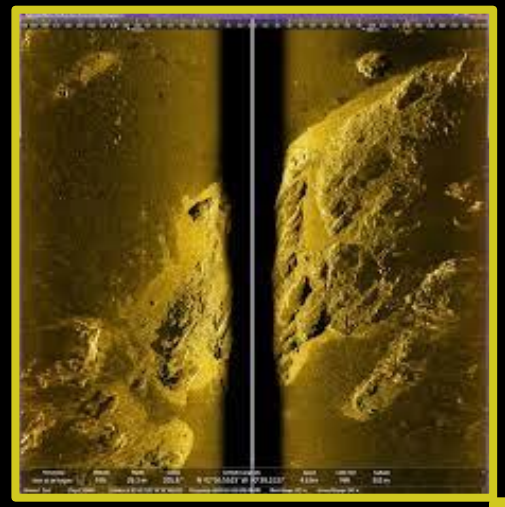




SONAR DEVICES

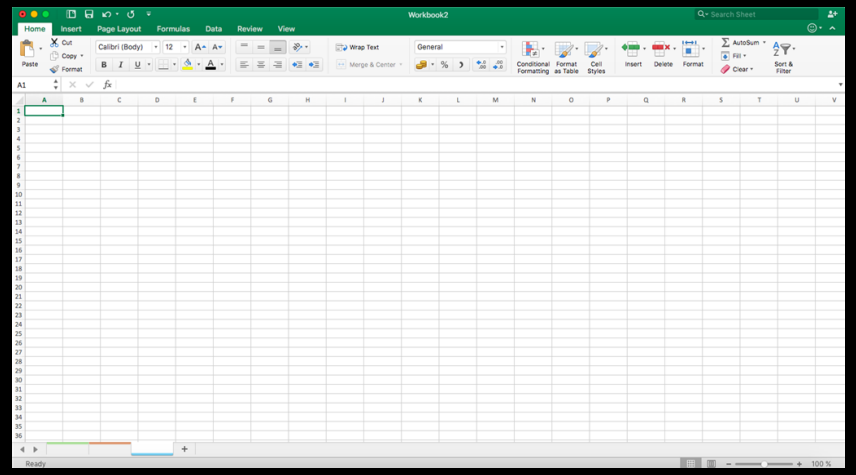
Omniscan 450 SS

- Reliable imaging
- 5% degree (y movement)
- 70% Angle of scan
- Detailed Imaging – True
- Data Transcription - Possible



DATA SAVING

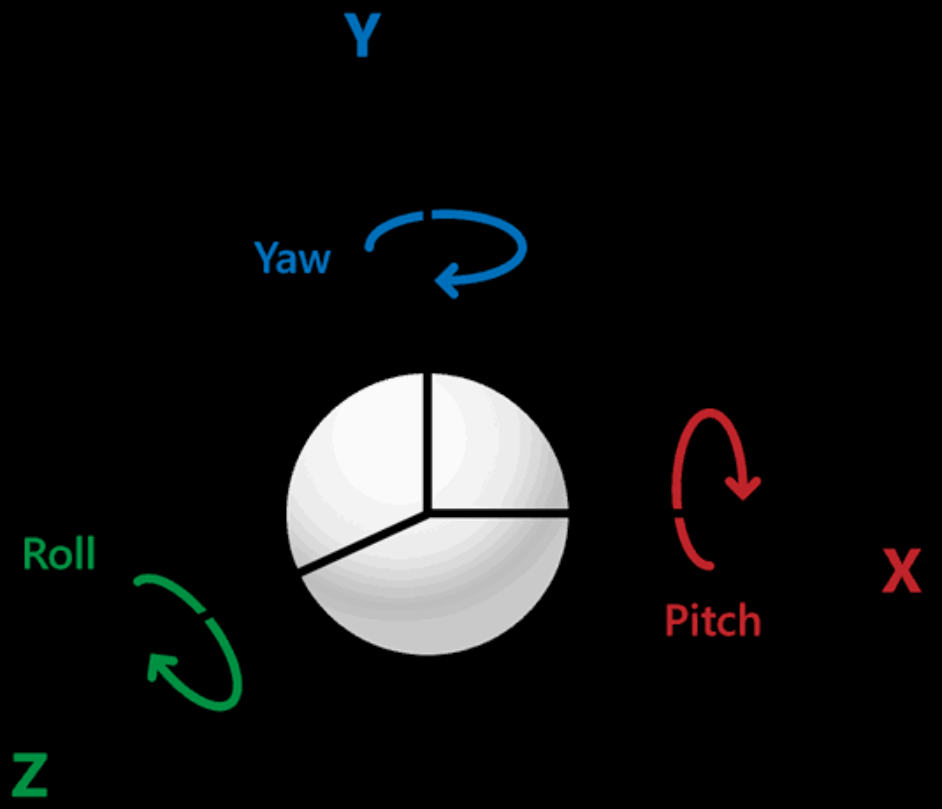
- Sonar data saving options:
  - On-board
  - Topside Receiver
- Format:
  - Excel spreadsheet
- Information Saved:
  - X Y Z of contact point
  - Telemetry data (UAVs XYZ pitch)
  - Time and speed motors are active between points of scan



SCANNING SEQUENCE

Proposal

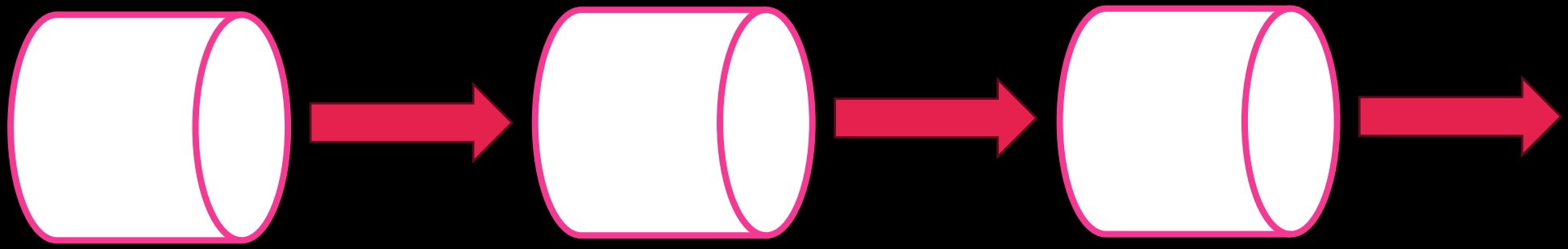
- Based on the sonar type selected:
  - Command/button through Adru Sub (operating system)
  - Rotate AUV in a specific pattern to scan that module of the cave.



SCANNING SEQUENCE

Collect Modules of Cave

- After x Distance Scan and Collect data point



CLOUD PLOTTING

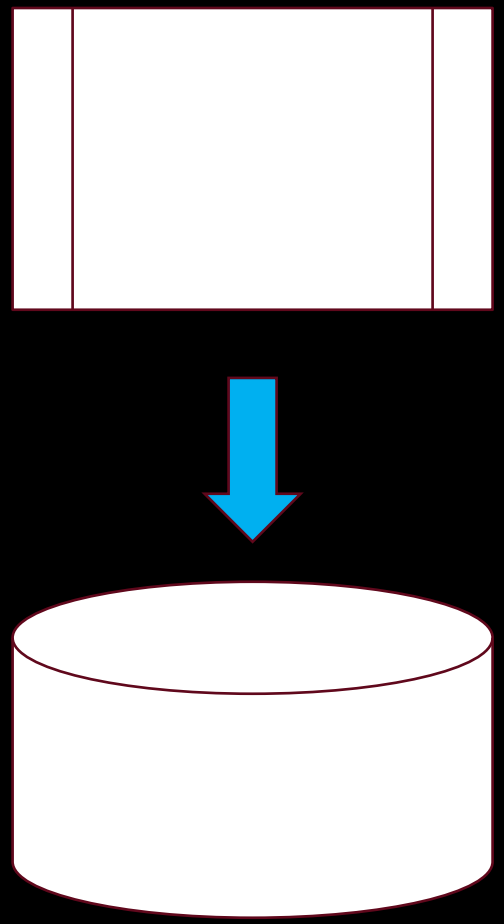
Data Returned

- Side Scan:
  - 3 Dimensional Plane

CLOUD PLOTTING

Data Returned

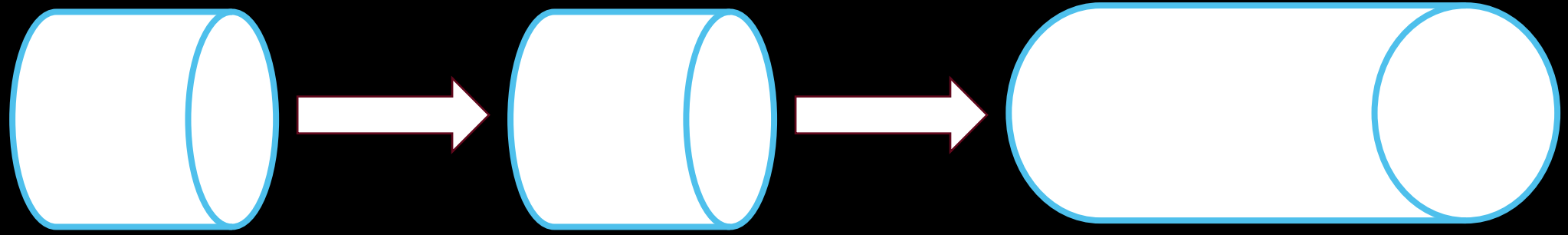
- Conform 3D plane to Cylinder



CLOUD PLOTTING

Module Combination

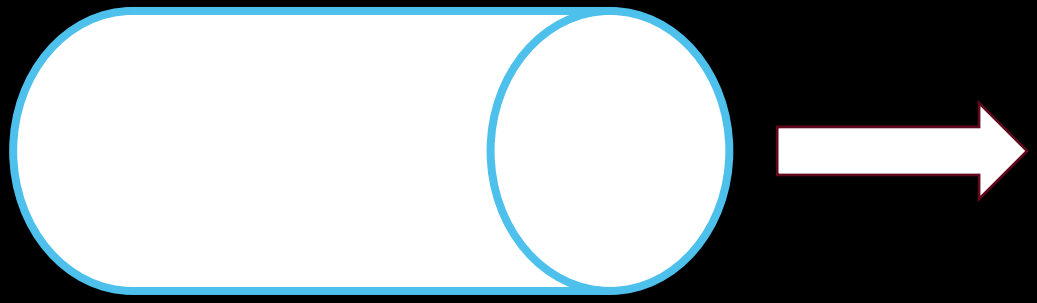
- Using Point Recognition to identify points of contact for connection

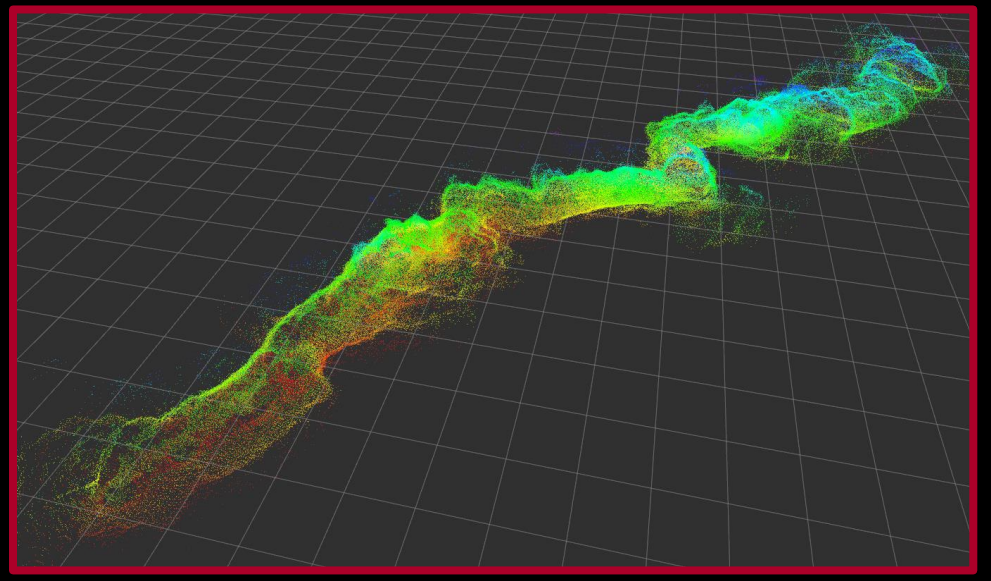


CLOUD PLOTTING

Goal

- User Interface to see and interact with the Cloud Plot





MILESTONE 2 : TASKS

1

- **SSD DATA:**
  - Create a program to save Required Data to Excel

2

- **Scanning Sequence:**
  - Using Ardu Sub create a sequence that maps close to 100% of a cave segment

3

- **Cloud Plotting**
  - **Objective:** Get each module to be properly wrapped
  - **Goal:** Work on combining sections

WEBPAGE LINK

TEC-V

https://bluecodehydra.github.io/FIT_Project-TEC_V/data.html

QUESTIONS?