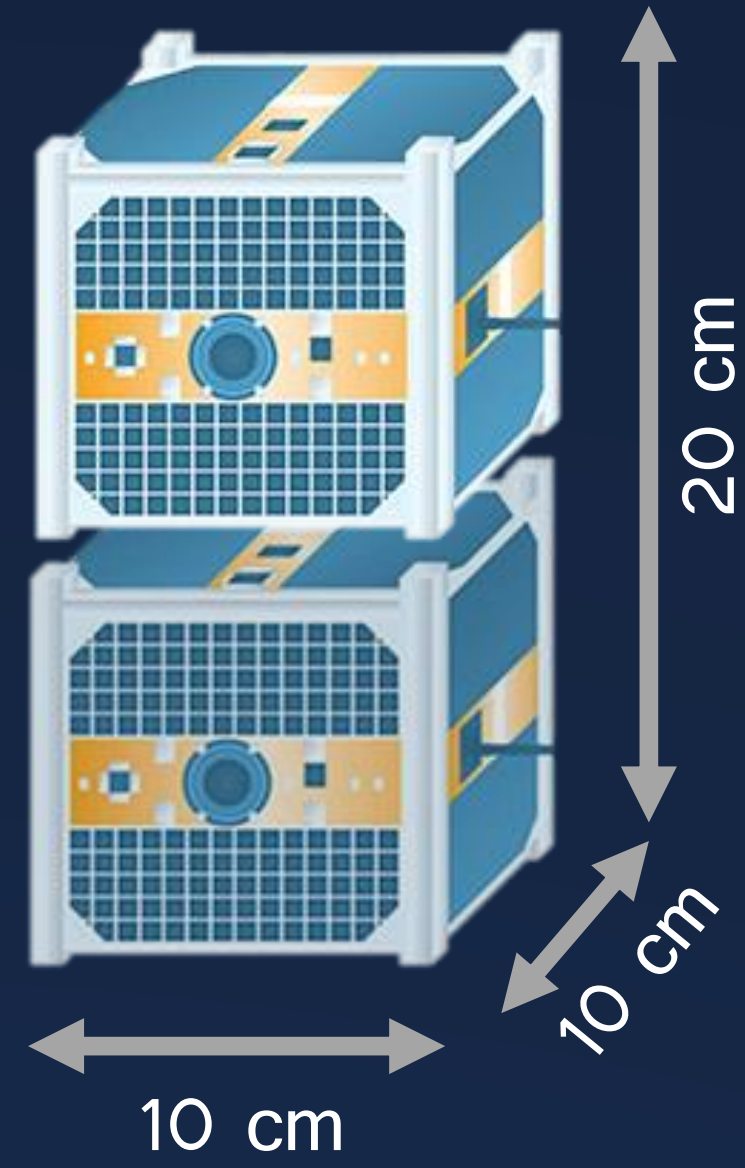


# CUBESAT NB

## SPECTRAL AIRGLOW STRUCTURE IMAGER AND ON-BOARD COMPUTER

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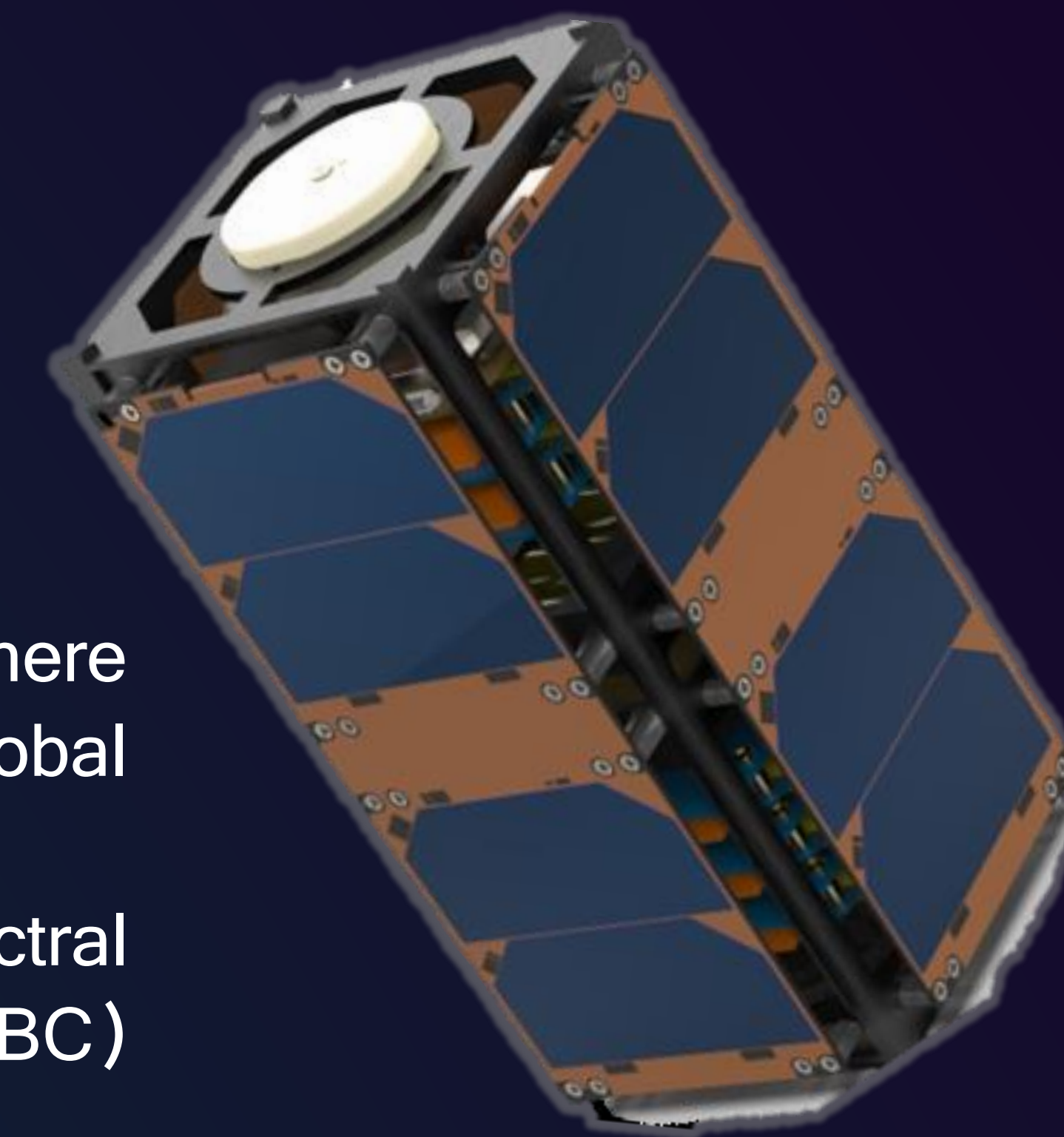
### WHAT IS A CUBESAT?

Cube satellites (CubeSats) are cube-shaped satellites built in blocks termed “units”. CubeSat NB is a collaboration between students and professors from UNB, NBCC, and UdeM. CubeSat NB’s satellite, named VIOLET will be a 2U CubeSat with a size of 20cm x 10cm x 10cm.

### MISSION

VIOLET’s mission is to gather data about the earth’s ionosphere and relay this data back to earth through signals transmitted by global navigation satellite systems.

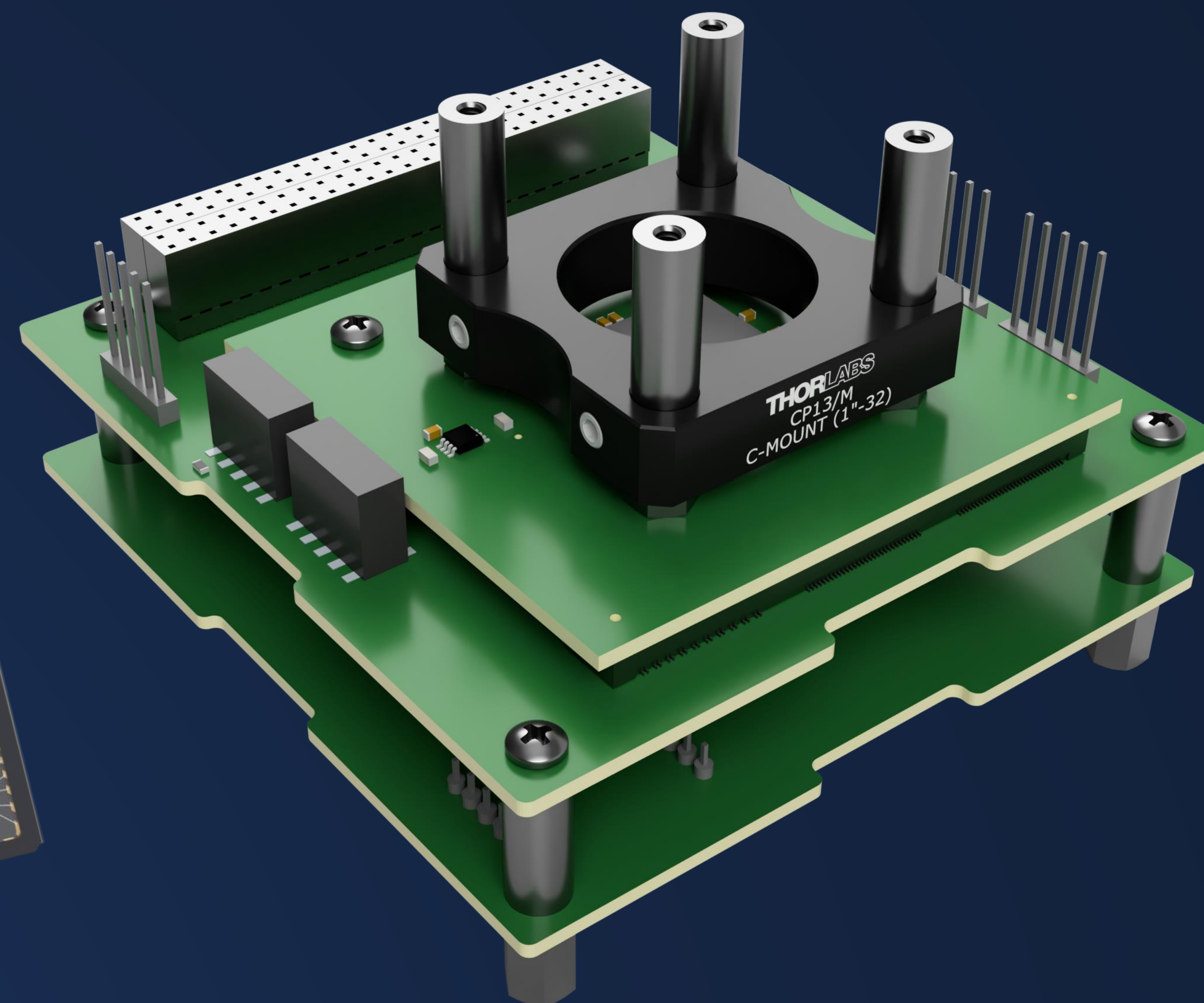
Our project covers two subsystems of the CubeSat. The Spectral Airglow Structure Imager (SASI) and the On-Board Computer (OBC) subsystems were designed, built and tested by the team.



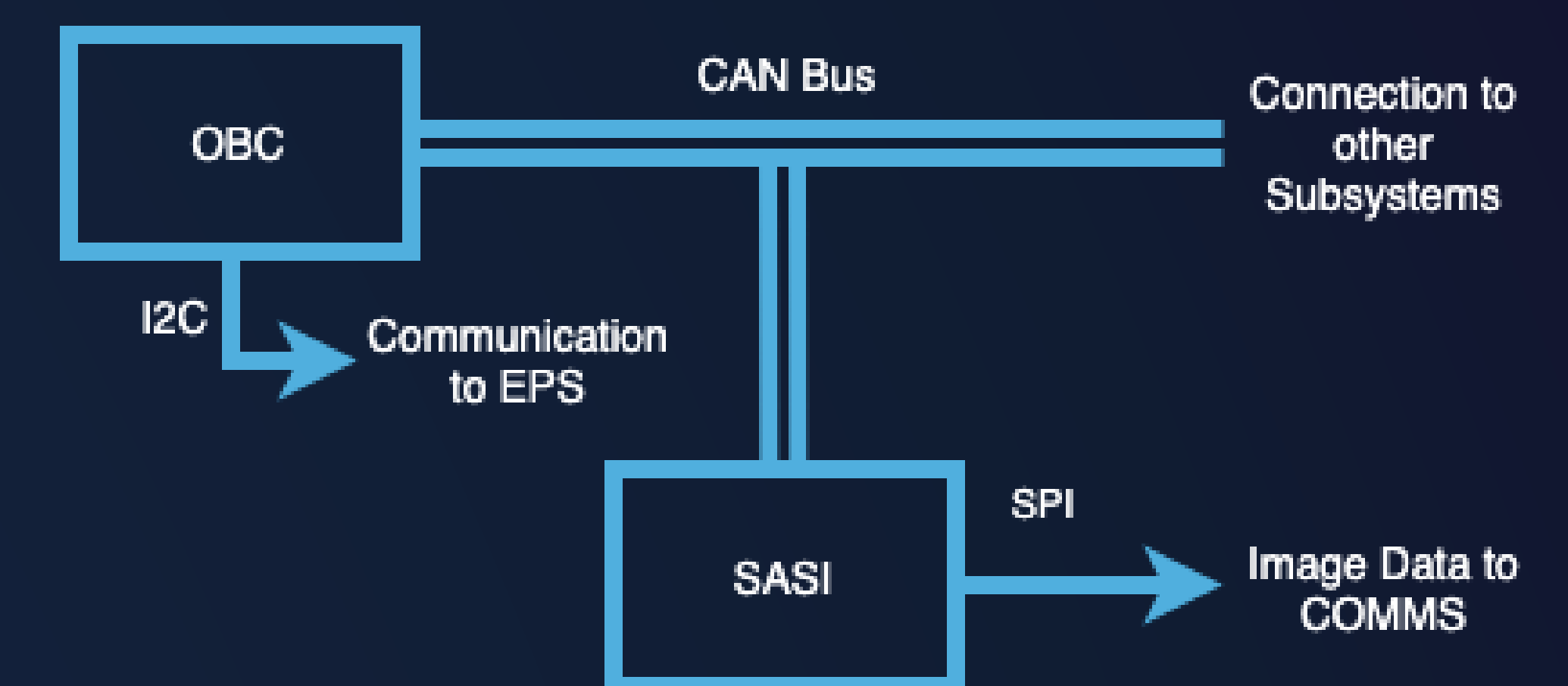
### SASI SUBSYSTEM

The Spectral Airglow Structure Imager (SASI) subsystem will be responsible for capturing the images of the ionosphere.

The images will quickly be stored in memory, and then sent to the communications module when prompted.



### SYSTEM OVERVIEW

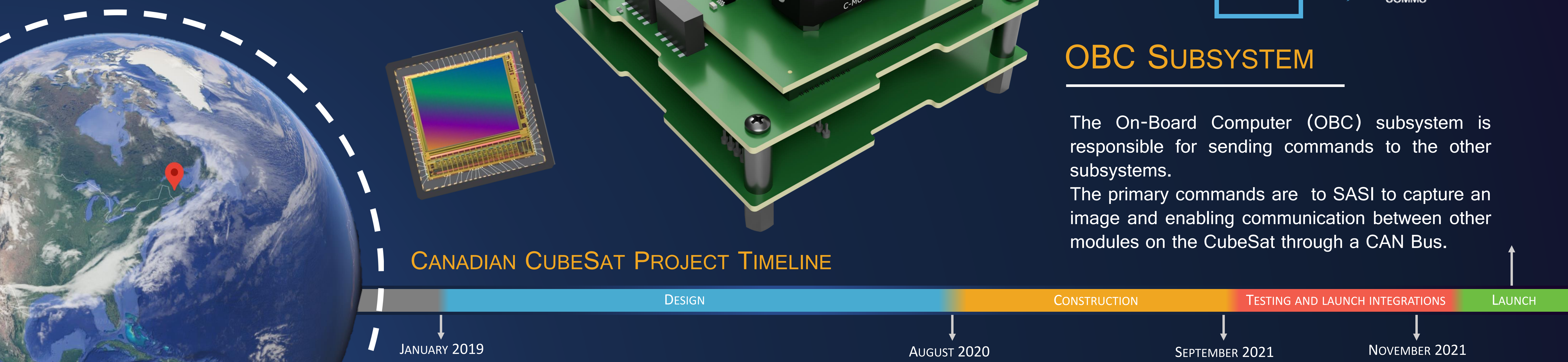


### OBC SUBSYSTEM

The On-Board Computer (OBC) subsystem is responsible for sending commands to the other subsystems.

The primary commands are to SASI to capture an image and enabling communication between other modules on the CubeSat through a CAN Bus.

### CANADIAN CUBESAT PROJECT TIMELINE

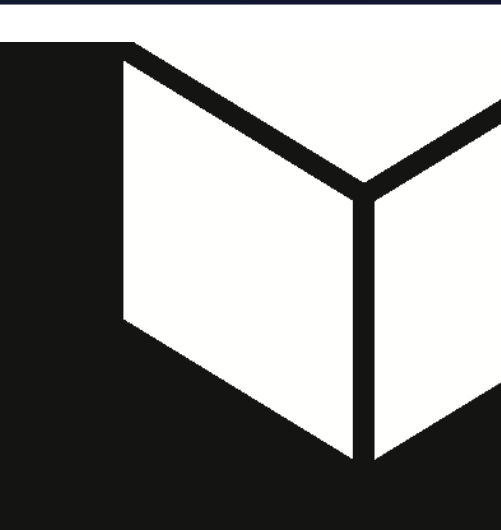


### ACKNOWLEDGEMENTS

The team would like to acknowledge the following people for their support: Mr. Lavigne, Dr. Scheme, Alex Voisine, Ben Wedemire, Dr. Petersen, Billie O'Connor, Bruce Miller, and the CubeSat NB team.



SCAN ME



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