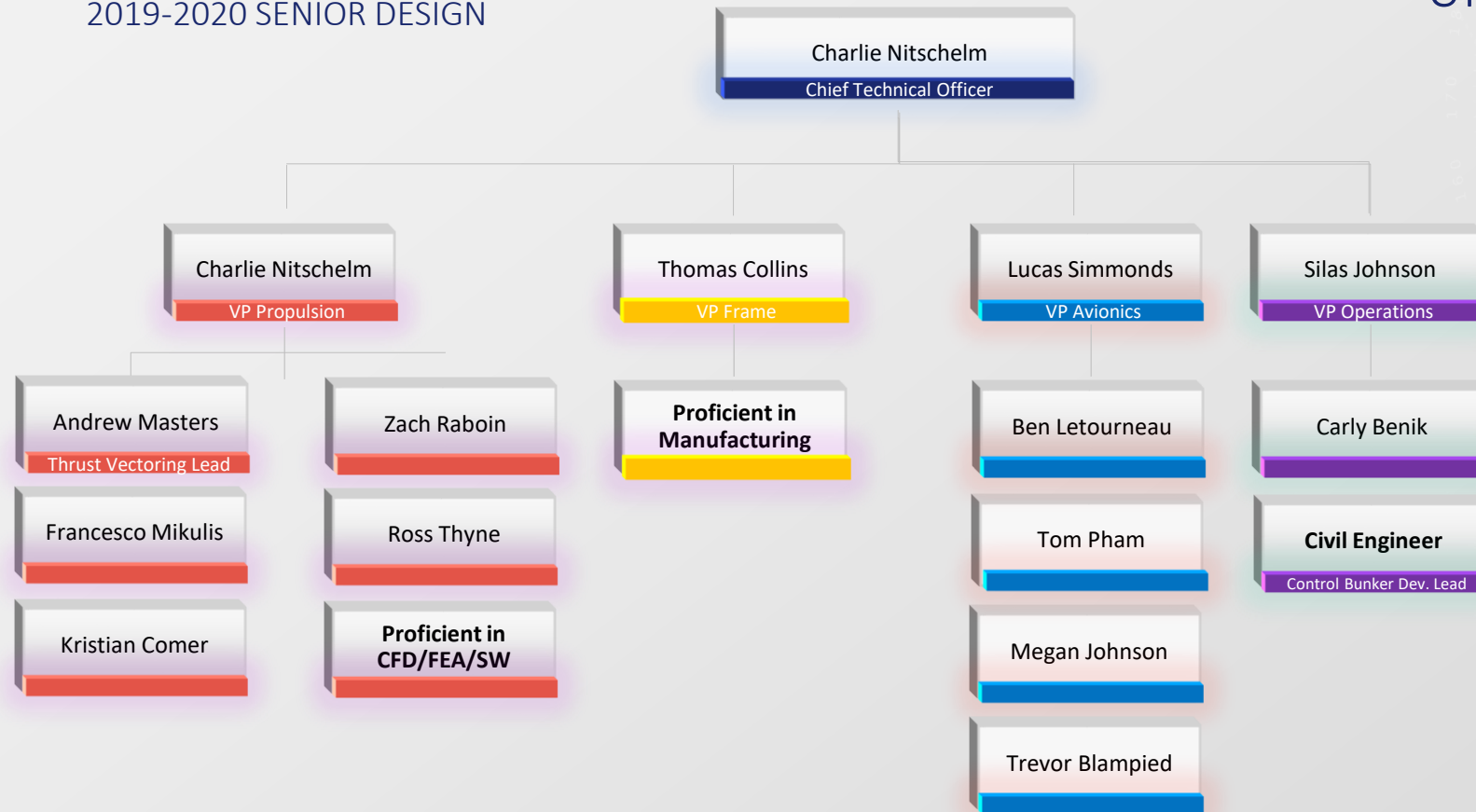


ENGINEERING ROLES

2019-2020 SENIOR DESIGN

UNH SEDS



Propulsion

Frame

Avionics

Operations

ENGINEERING SECTION GOALS

2019-2020 SENIOR DESIGN

UNH SEDS

Charlie Nitschelm

Chief Technical Officer

Charlie Nitschelm

VP Propulsion

1. Develop, test and optimize a working Hybrid Rocket Engine, Runaway.
 - a. Manufacture, test and optimize and repeat
2. Develop and test a small-scale thrust vectoring system with COTS engines
 - a. Flight test with a stable rocket, unstable rocket, and a quadcopter drop test mid-air, and landing attempts.
 - b. Develop, manufacture and test a hybrid gimbal system to integrate with Runaway (2 year program)

Thomas Collins

VP Frame

1. Work with every engineering team to design the best rocket frame and internal structures needed for flight including the propulsion, avionics, recovery and payload modules.
2. Manufacture the components with a well-thought out integration system for all systems with live debugging on the field ability.

Lucas Simmonds

VP Avionics

1. Develop the electrical system to power the navigation and control of the rocket.
 - a. Will work closely with the gimbal project
2. Ensure that the rocket has optimum performance during testing and launch (pulling one 'Remove Before Flight' and turning all systems on in the rocket).
3. Design, build and test a payload to conduct scientific research (this is totally open)
4. Create a full-proof recovery system for apogee for the payload deployment and main rocket recovery.

Silas Johnson

VP Operations

1. Communicate with all teams above to design, manufacture and build test equipment, procedures and plans for all testing being done.
2. Lead the project to secure an area for SEDS to base all testing on, including the development of the mobile mission control bunker.
3. Lead major sub-projects as they arise.



Propulsion



Frame



Avionics



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