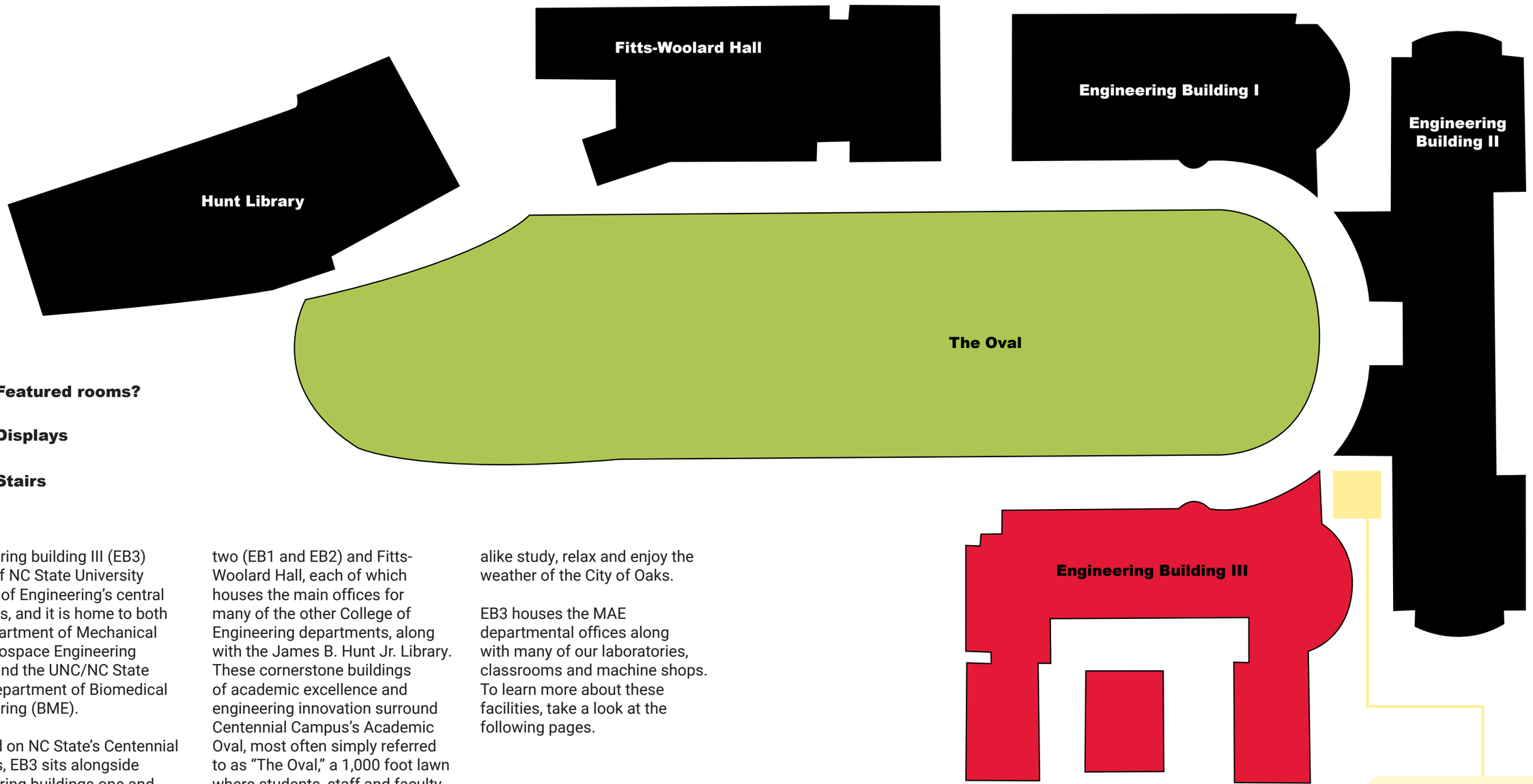
self-guided tour



welcome to the MAE spaces in

engineering building III

01

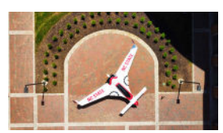


building guide

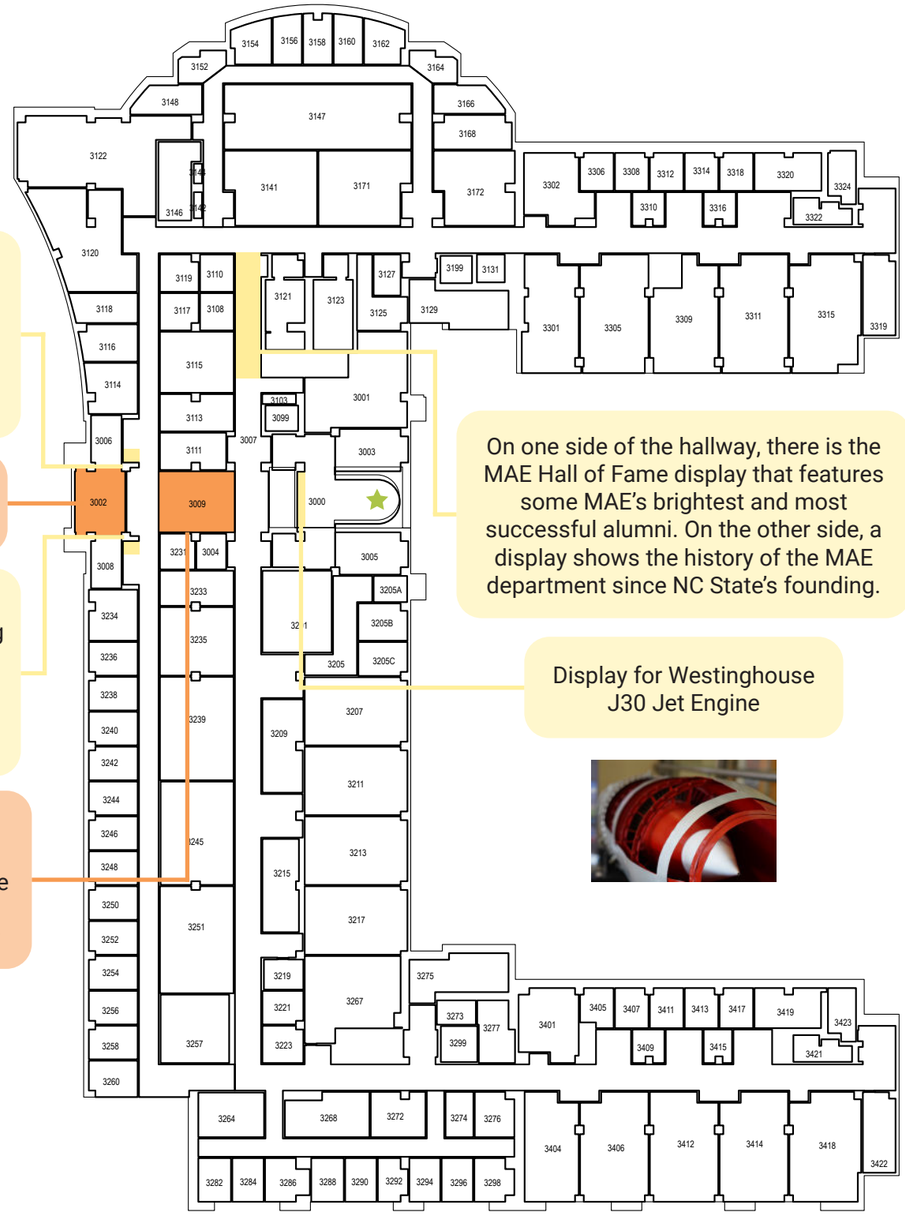
Engineering building III (EB3) is one of NC State University College of Engineering's central buildings, and it is home to both the Department of Mechanical and Aerospace Engineering (MAE) and the UNC/NC State Joint Department of Biomedical Engineering (BME).

Situated on NC State's Centennial Campus, EB3 sits alongside engineering buildings one and two (EB1 and EB2) and Fitts-Woolard Hall, each of which houses the main offices for many of the other College of Engineering departments, along with the James B. Hunt Jr. Library. These cornerstone buildings of academic excellence and engineering innovation surround Centennial Campus's Academic Oval, most often simply referred to as "The Oval," a 1,000 foot lawn where students, staff and faculty alike study, relax and enjoy the weather of the City of Oaks.

EB3 houses the MAE departmental offices along with many of our laboratories, classrooms and machine shops. To learn more about these facilities, take a look at the following pages.



Adjacent to the Oval, you can find a Long EZ Aircraft that was constructed, flown and donated to the MAE Department by Aerospace PhD Alumni Arthur (Art) Grantz.



Displays for a rocket Designed by our High-Powered Rocketry Team and a donated Rolls Royce Helicopter Engine

MAE Administrative Offices

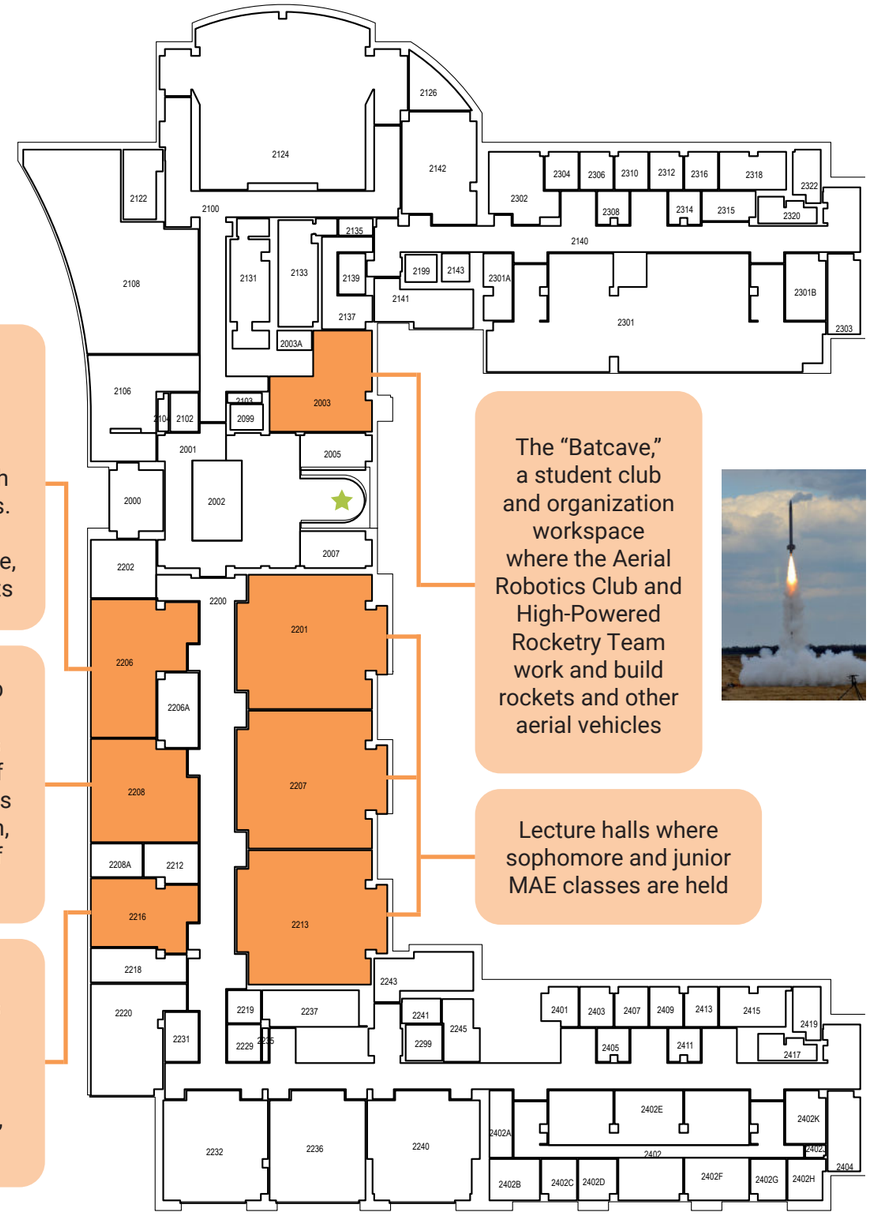
Displays for an Aerospace Engineering multi-copter senior design project and a donated Denso Robotic Arm

MAE Lobby with 1:96 scale model of Launch Complex 39-A during the Apollo era, Located at Kennedy Space Center

On one side of the hallway, there is the MAE Hall of Fame display that features some MAE's brightest and most successful alumni. On the other side, a display shows the history of the MAE department since NC State's founding.

Display for Westinghouse J30 Jet Engine

third floor



Thermal Sciences & Energy Systems Lab - Introduces students to the measurements of properties associated with thermal and fluid sciences. Lab modules include experiments in temperature, air and fluid measurements

Structural Mechanics Lab - Introduces students to instrumentation systems and basic components of solid mechanics. Conducts experiments in rod torsion, beam bending and use of strain gauges

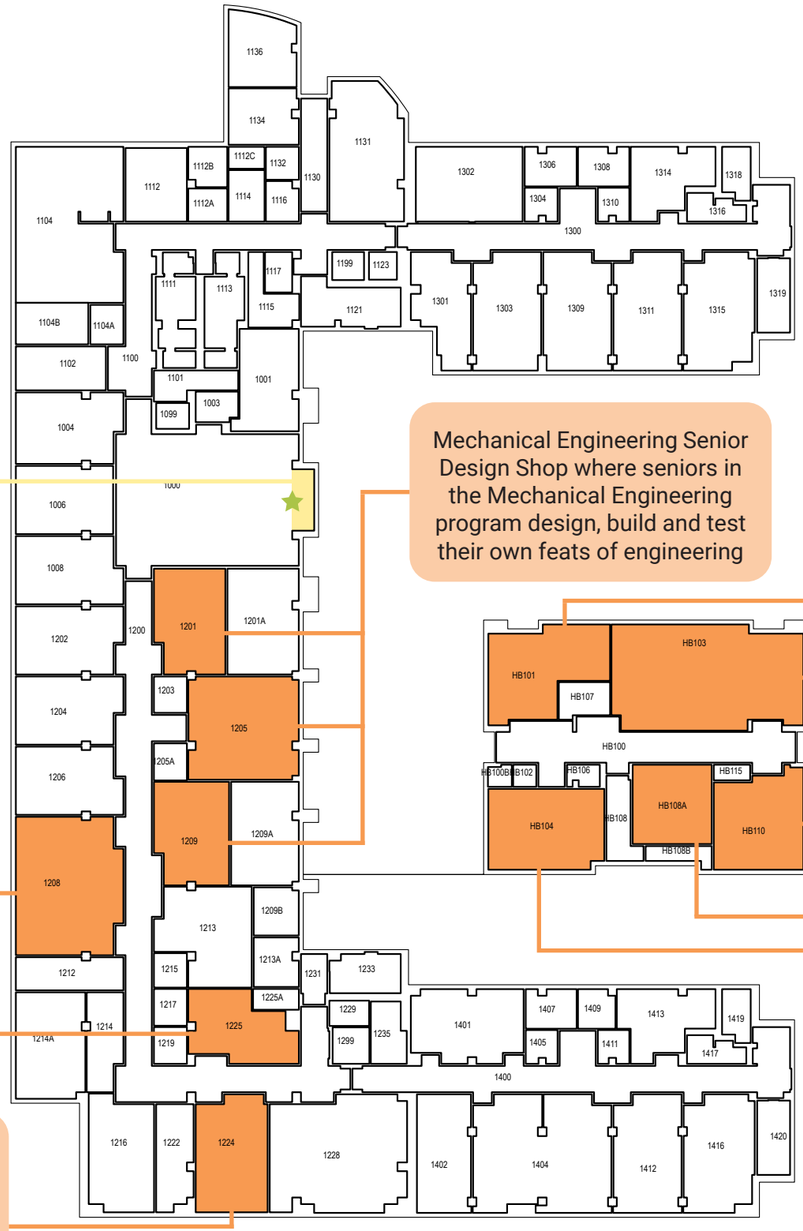
Dynamics, Vibrations & Controls Lab - Introduces students to principles of dynamics and controls. Lab modules include experiments in vibrations, circuits and PID control

The "Batcave," a student club and organization workspace where the Aerial Robotics Club and High-Powered Rocketry Team work and build rockets and other aerial vehicles

Lecture halls where sophomore and junior MAE classes are held

second floor

01



Display of Formula and Baja Team Cars from previous years

Undergraduate Student workspace developed by faculty to give undergraduates more freedom to explore their engineering interests and work on projects with various different teams

Aerospace Engineering Flight Senior Design Shop where seniors in the Mechanical Engineering program design and build different types of aircrafts

Aerospace Engineering Space Senior Design Shop where seniors in the Mechanical Engineering program design and build spacecrafts

Mechanical Engineering Senior Design Shop where seniors in the Mechanical Engineering program design, build and test their own feats of engineering

first floor

The Highbay Building is located behind EBIII and is accessible through the first floor of EBIII.

Formula SAE Student Team Autoshop where students build a new Formula Race Car every year for SAE Competitions



Subsonic Windtunnel Facility used to simulate flight conditions so that research data can be gathered on everything from unmanned aerial vehicles (UAVs) to military jets. The subsonic tunnel can also be used to simulate storm conditions that test the durability of structures such as buildings or bridges, and it can reach wind speeds of 90 mph. We also have both a supersonic and now a hypersonic wind tunnel at our MAE West Research Labs

Baja SAE Student Team Autoshop where students build a new Baja Car every year for SAE Competitions

An anechoic chamber used for sound and vibration research. The chamber is so silent that you can hear your own organs if you are in there for long enough



SolarPack Student Team Autoshop where students design and build solar powered vehicles to compete in the Formula Sun Grand Prix Competition



NC State University Department of Mechanical and Aerospace Engineering
Campus Box 7910
Raleigh, NC 27695-7910

@ncstatemae @ncstatemae facebook.com/ncstatemae nc state mechanical & aerospace engineering