AUTONOMOUS MACHINES
Toward your dreams

AUTONOMOUS MACHINES

Do you want to learn how to design, fabricate, program, and control robots, drones, and other cool autonomous machines?

In the **New Engineering Education Transformation (NEET) Autonomous Machines (AM) thread**, you will acquire hands-on experience through a series of projects with escalating complexity.

Sophomore Year

Individual projects that focus on sensor usage and integration, basic fabrication, and structured programming for robotic applications.

Junior Year

Introduction to the Robot Operating System (ROS), and a group project that focuses on autonomy navigation algorithms that utilize GPS, LIDAR, and vision sensing.

Senior Year

A class project working with our industry partners that solves a meaningful real-world problem in autonomous systems and robotics.

AM LEAD INSTRUCTOR

Dr. Gregory Long
AM Lead Instructor, Lecturer
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LEARN MORE

THREAD REQUIREMENTS

Sophomore Year

Fall or IAP
- 16.632A | Introduction to Autonomous Machines I (6 units)

Spring (Choose ONE from the following)
- 16.632B | Introduction to Autonomous Machines II (6 units)
- 2.S007 | Design and Manufacturing I: Autonomous Machines (12 units)
- 2.007 | Design & Manufacturing I (with an autonomy requirement; 12 units)

Junior Year

Fall
- 16.633 | NEET Junior Seminar: Autonomous Machines (3 units)

Spring (Choose ONE project class from the following)
- 2.124[J]/6.4200[J]/16.405[J] | Robotics: Science and Systems (12 units)
- 2.12 | Introduction to Robotics (12 units)

Senior Year

Fall AND/OR Spring (depending on scope and breadth of the project)
- 16.634 | NEET Senior Seminar: Autonomous Machines (6 units) or 16.85* (12 units)

Course 16.85 offered every 3 semesters.

Foundation Subjects

Intro to Programming: 6.100A and 6.100B, 2.086, or 6.1010

Controls: 2.004, 6.3100, or 16.06

> NEET is a **3-year, experiential learning certificate program** (sophomore through senior year) that you complete in the usual four years along with your major. All NEET scholars gain **exclusive access** to the **NEET Scholars Collaboration Space (3-001)**.

AM FOUNDING FACULTY LEAD

Professor Jonathan How
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Follow the action on Instagram at @mit_neet!