INTERMEDIATE · HARDWARE + WEB

A small sensor kit that tracks your room's heat and noise *on your phone.*

An ESP32 board, two sensors and your own dashboard. Parts cost around ₹1,000.

3–5	4	5
weeks to build	parts one prompt won't solve	steps, in order



NYC is taught live by engineers *who work in tech today.*

This brief is by the NYC team. These are the engineers who teach NYC's live classes.

The instructors

FULL STACK AND GENAI

Swapnil

Forward Deployed Engineer, Microsoft

IIT (ISM) Dhanbad. Works on Microsoft Teams.

DSA

Akshay

Senior Software Engineer, Atlassian

IIT Bombay. Earlier at Jio Platforms and Myntra.

DATA SCIENCE AND ML

Abhishek

Engineering Analyst, Google

IIT Kanpur. Earlier at Optum and BARC.

AGENTIC AI

Jaskirat

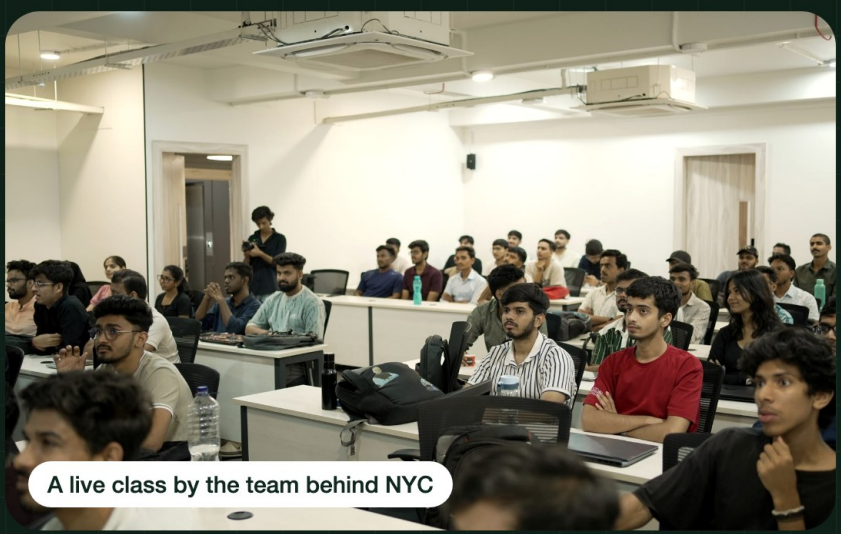
Senior Software Engineer, NTT DATA

Builds agentic AI platforms.

Instructors speak for themselves, not for their employers.

Live classes, five days a week. *Fridays are for building.*

Every NYC course is taught live by engineers, 1.5 hours a day, and engineers review every project.



A live class by the team behind NYC

Four courses

For first and second-year college students

6 months · Software Engineering + AI

4 months · Data Analytics + GenAI

6 months · Data Science & Machine Learning

8 months · AI Engineering

Where our students *work now.*

Students taught by the team behind NYC, at Sheryians Coding School. 1,200+ are placed.

HIGHEST PACKAGE



Kushagra Patidar

SDE 1, Amazon

₹47 LPA

LinkedIn ↗



Anuj Parashar

SDE, Care Health Insurance

₹22 LPA



Rishika Jain

Cisco

₹17 LPA



Mansi Patel

Airtel

₹15 LPA

INTERMEDIATE · 3–5 WEEKS

Room Monitor: *what you'll build.*

An ESP32 board with a temperature and humidity sensor and a sound sensor, placed in your room. It sends readings every minute to your own server. A phone dashboard shows live values and graphs, and alerts you when the room gets too hot or too loud.

Test it with real people

Run it in your room for two weeks.

It must do these 4 things

1. **A reading every minute.**
2. **A dashboard with live values and 7-day graphs.**
3. **Alerts with limits you set.**
4. **Keeps working after Wi-Fi drops and power cuts.**

What you'll learn

C++ or MicroPython · Sensors · HTTP or MQTT · Time-series data · Device security

Where one prompt *falls short.*

Use AI for any part you like. These are the parts you will still have to understand, test and fix yourself.

> “Hardware does not follow prompts.”

1. Hardware does not follow prompts. A loose wire or the wrong pin needs a multimeter and patience.
2. Hostel Wi-Fi drops. The board must reconnect on its own and keep the readings it couldn't send.
3. Sound sensors are noisy. Turning raw numbers into "too loud" needs real testing in your room.
4. A device that sends data online needs a key, or anyone can send fake readings.

At NYC: engineers review work like this with you in live classes, every week.

Build it in *5 steps.*

1. Read both sensors and print the values.
2. Send readings to a small API on your server.
3. Build the dashboard and alerts.
4. Add reconnecting and saving unsent readings.
5. Run it for two weeks.

It is done when

- ✓ Two weeks with less than 1% of minutes missing.
- ✓ Readings taken during a 10-minute Wi-Fi cut still reach the dashboard.
- ✓ A request without the key is refused.

Go further

- Battery power with deep sleep.
- A small screen on the device.
- Several rooms on one dashboard.

Built it? Submit it for a mentor review

Submit at notyourcollege.com/project-ideas. An NYC mentor reviews every build; the best ones may be featured on the NYC website and YouTube channel.

This brief is by the NYC team. Tools, prices and limits change, so check each service's own docs.