Become a Smart Home Architect

A 6-Month Professional Certificate in Electronics, Programming, IoT, and 3D Design

Go Beyond the "Smart Plug"

Store bought smart devices are expensive, lock you into one brand, and often rely on cloud servers that go down or invade your privacy.

True automation means building a home that works for you.

This course is a comprehensive, 6 month (24 week) program designed to take you from a complete beginner to a professional Home Automation integrator. You will learn the full stack from the "atom" of a single resistor to the "brain" of a fully integrated, local first smart home.

This is not a hobby class. It's a professional program that teaches you to build, program, and deploy custom solutions from scratch.

The 6-Month Curriculum: From Bit to Atom

Our hands on course is divided into four intensive modules. Each week features a new practical lab.

Module 1

Module 2

Module 3

Module 4

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Module 1

Electronics & Programming (Weeks 1–6)

Master the fundamental "atoms" of all smart devices.

- Electronics: Learn Ohm's Law, circuit design, and soldering.
- C++: Program the Arduino to read sensors (buttons, light) and control outputs (LEDs).
- High Voltage: Safely control household lamps and appliances using relays.

Module 2

Module 3

Module 4

Module 1

Module 2
Embedded Systems & Python (Weeks 7–12)

Give your devices a brain and a voice.
- ESP32: Master the ESP32 microcontroller with built in Wi-Fi.
- Web Servers: Build a web page on your device to control it from your phone.
- Python & Raspberry Pi: Set up a Raspberry Pi as your central "hub" and learn the Python language.

Module 3

Module 4

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Module 1

Module 2

Module 3
IoT & System Integration (Weeks 13–18)

Connect all your devices into one seamless "nervous system."

- MQTT: Implement the industry standard messaging protocol for IoT.
- Home Assistant: Install and master Home Assistant, the world's most powerful open source smart home "brain."
- ESPHome: Discover the "no-code" framework to build custom devices that integrate natively with Home Assistant.

Module 4

Module 1

Module 2

Module 3

Module 4

3D Design & Capstone (Weeks 19–24)

Give your projects a professional, finished "skin."

- CAD: Learn Fusion 360 to "think" and design in 3D.
- 3D Printing: Take your digital models and "slice" them for 3D printing.
- Final Capstone Project: Design, program, solder, and 3D print a complete Smart Thermostat from scratch combining every skill from the course.

Who Is This Course For?

This certificate is ideal for:

- IT Professionals seeking to specialize in the rapidly growing IoT field.
- Electricians & Installers wanting to upgrade their skills for smart home installations.
- Serious Hobbyists & Makers ready to take their projects from breadboards to products.
- Aspiring IoT Developers who need a full-stack, practical portfolio.

What You Will Master?

- Hardware: Circuit Design, Soldering, & Component Selection.
- Programming: C++ (for microcontrollers) & Python (for high level logic).
- Platforms: Arduino, ESP32, Raspberry Pi.
- IoT Software: MQTT, Home Assistant, & ESPHome.
- Prototyping: Fusion 360 CAD & 3D Printing.

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Start Your Journey Today.

Stop buying your smart home. **Start building it.**

Our 6 month, hands on course gives you the complete toolset to design and deploy any automation you can imagine.

Enroll Now for the Next Cohort!

TAKE YOUR DEVICE

SCAN THE QR

MAKE THE PAYMENT

GET THE SERVICE

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