

Home Automation Fundamentals

Introduction to Home Automation

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pluralsight 
hardcore developer training

Overview

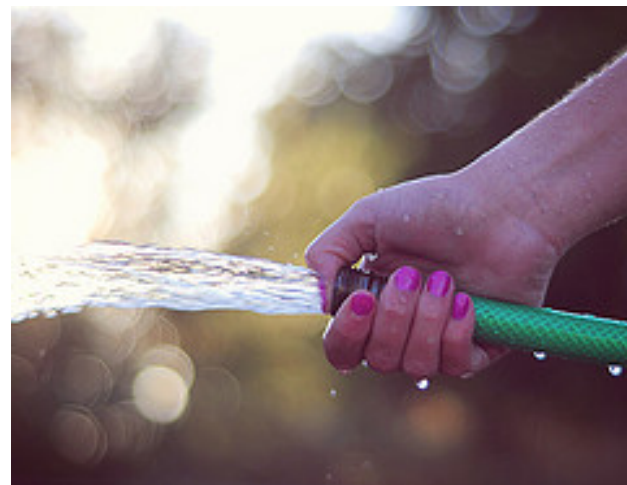
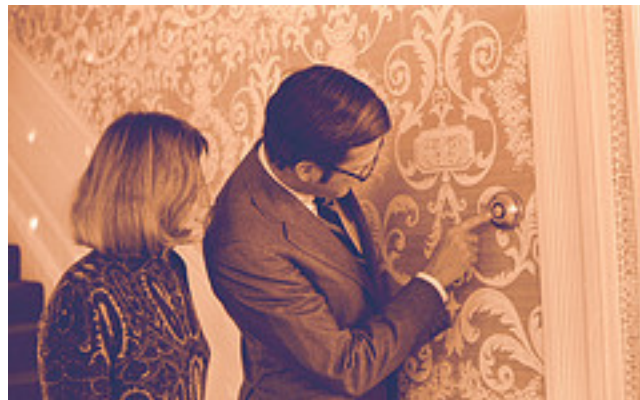
- What is Home Automation?
- History of Home Automation
- The Setup and Why I Chose It
- What You Need To Follow Along

What is Home Automation?

- You probably have a guess...



What is Home Automation?



What is Home Automation?

- Automating home tasks that are historically manual.



What is Home Automation?

- **Automating home tasks that are historically manual.**
 - Controlling lighting
 - Temperature and HVAC
 - Media management
 - Shading
 - Home security
 - Communications systems
 - Cleaning devices
 - Appliance triggering and status monitoring

History of Home Automation

- 1898: First remote control.
- 1920s: Majority of American homes wired for electricity.
- 1920s: First radio station broadcasts.
- 1955: Majority of American homes have television.
- 1960s: The Jetsons displays futuristic home automation concepts.
- 1975: X10 protocol project was conceived by Pico Electronics
- 1978: First X10 home automation products in Radio Shack stores
- 1985: “The Clapper” is patented.
- 1995: X10 Website Launched.
- 1999: Wireless home automation via ZigBee is conceived.
- 2010s: Players like Google, Apple, ADT, Comcast enter the market.
- 2014+: Sky is the limit!

My Setup and Why I Chose It

- Raspberry Pi for cost and compact size.



- X10 for cost and simplicity



- Python for compatibility everywhere



What to Order to Follow Along

- Raspberry Pi (\$40)
- Mini SD Card (\$7)
- Android-style USB charger (\$3)
- (Optional) HDMI to DVI or VGA adapter (\$5)



What to Order to Follow Along

- X10 CM19A Wireless Transceiver Computer Interface (\$20)



- X10 XT751A Wireless Transceiver Module (\$20)



- All In: Around \$100

Summary

- What is Home Automation?
- History of Home Automation
- The Setup and Why I Chose It
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