**VIDEO :03:** **ATtiny 85**

* The script discusses using an ATtiny 85 microcontroller to control a WS 2801 LED strip with animations, highlighting programming it via Arduino software. It details setup, wiring, and the creation of a programming shield for easier connections, while addressing limitations and solutions for using SPI protocol.
* The video focuses on programming an ATtiny 85 microcontroller using Arduino software to control WS 2801 LED strip animations. This approach is cost-effective and efficient for small projects.
* The advantages of using the ATtiny 85 over the ATmega 328 include lower cost and sufficient I/O pins for simple projects. It's ideal for specific applications like LED control.
* The process of setting up the Arduino software involves downloading the correct version and adding ATtiny board data for compatibility. This step is crucial for successful programming.
* Uploading the Arduino ISP sketch to the ATmega328 is necessary to program the ATtiny 85. This enables the use of the Arduino as a programmer for the smaller microcontroller.
* The video demonstrates how to effectively set up and program the ATtiny 85 microcontroller using an Arduino. It covers wiring, programming considerations, and limitations of the ATtiny system.
* The pin configuration of the ATtiny 85 is crucial for programming, with specific pins designated for ground, VCC, and input/output operations. Understanding this configuration is essential for successful implementation.
* Creating a custom ATtiny programming shield simplifies connections and enhances accessibility. This allows for easier programming without worrying about incorrect wiring.
* The ATtiny has limitations, such as not supporting all Arduino functions like SPI, but existing solutions enable functionality without extensive coding. This demonstrates community support in overcoming microcontroller constraints.