

Component	Description
ATtiny85	A small and low-cost microcontroller used to run the voltmeter code.
Potentiometer	Acts as a variable voltage source for testing input voltage changes.
Power Supply (3.3V / 5V)	Provides voltage to the ATtiny85 and other components.
Seven Segment Display	Displays the voltage readings (0.00V - 5.00V typically).
220-ohm Resistors	Current-limiting resistors for display segments.
Wires / Breadboard	For interconnections in the circuit.

4. Description of the Project and the Code:



Project Description:

The goal of this project is to **build a simple digital voltmeter** using the **ATtiny85 microcontroller**. It measures the voltage from a source (like a potentiometer) and displays the result on a **7-segment display**.

- The potentiometer acts as a test voltage input ranging from 0 to 5V.
- The ATtiny85 reads the analog voltage using its **ADC (Analog to Digital Converter)**.
- The voltage is then calculated and shown as a numerical value on the 7-segment display (e.g., 3.45V).



Circuit Description (Wiring Overview):

- **VCC & GND:** Power the ATtiny85 with 5V and connect all grounds.
- **Potentiometer:** Middle pin to an analog pin (e.g., PB2/A1), sides to VCC and GND.
- **Seven Segment Display:** Connected to digital pins (e.g., PB0–PB4) via resistors.
- **Common Cathode/Anode:** Adjust connection based on display type.