
Interacting Flowing LED Light with Arduino Uno

Objective:
Create a visually appealing LED sequence where the lights flow in a pattern, with interaction like button control or sensor input to change behavior.

Components Required:

- Arduino Uno
- 6–10 LEDs
- Resistors (220Ω for each LED)
- Push button or sensor (for interaction)
- Breadboard & jumper wires

Circuit Overview:

- LEDs are connected to consecutive digital pins (e.g., D2–D7) through resistors.
- A push button or sensor is connected to another pin to trigger changes.
- The Arduino lights up LEDs one after another to create a "flowing" or "running" effect.

Working Principle:

- The LEDs light up in sequence (left to right or right to left), creating a **chasing** or **flowing** effect.
- When a button is pressed or a sensor is triggered, the flow can **change direction**, **speed**, or **pattern**.
- Timing is controlled using delay() or millis() in code (not shown here).

Use Cases:

- Decorative lighting
- Eye-catching effects in DIY electronics
- Learning loops and logic with Arduino
