**Why Do We Use Interrupts?**

Interrupts are signals that momentarily pause the main program to execute a specific task, known as the Interrupt Service Routine (ISR). Once the task is completed, the program resumes normal execution. They enable the microcontroller to respond immediately to external events without continuously monitoring inputs.

**How Do Interrupts Reduce Microcontroller Processing Load?**

**Without Interrupts:**

* The microcontroller constantly checks for input changes.
* CPU cycles are consumed even when no changes occur.
* This results in increased power consumption and inefficient processing.

**With Interrupts:**

* The CPU can perform other tasks instead of continuously checking inputs.
* When an event occurs, only the relevant ISR is executed.
* Once the event is handled, the CPU resumes its previous task, optimizing performance and reducing power wastage.