Parallel Port Driver

D_7	D_6	D_5	D_4	D_3	D_2	D_1	D_0

read/write data register (port 0x378)

$\overline{BSY}$	$\overline{ACK}$	PAP	OFON	$\overline{ERR}$	–	–	–

read-only status register (port 0x379)

–	–	–	IRQ	DSL	$\overline{INI}$	ALF	STR

read/write control register (port 0x37a)
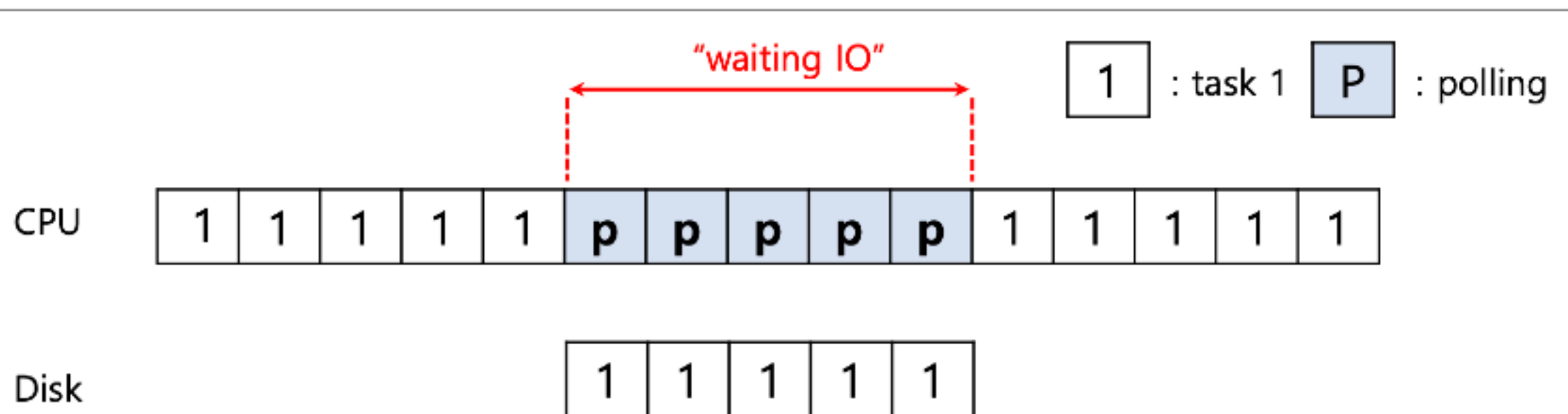
```c
void
sendbyte(uint8_t byte)
{
  /* Wait until BSY bit is 1. */
  while ((inb (0x379) & 0x80) == 0)
    delay ();

  /* Put the byte we wish to send on pins D7-0. */
  outb (0x378, byte);

  /* Pulse STR (strobe) line to inform the printer
   * that a byte is available */
  uint8_t ctrlval = inb (0x37a);
  outb (0x37a, ctrlval | 0x01);
  delay ();
  outb (0x37a, ctrlval);
}
```

Polling

➡ OS waits until the device is ready by repeatedly reading the status register

✓ Simple and working

⦿ Wastes CPU time just waiting for the device

Diagram of CPU utilization by polling