# Example : parallel port (LPT1)

- Three registers

| $D_7$ | $D_6$ | $D_5$ | $D_4$ | $D_3$ | $D_2$ | $D_1$ | $D_0$ |
|---|---|---|---|---|---|---|---|

read/write data register (port 0x378)

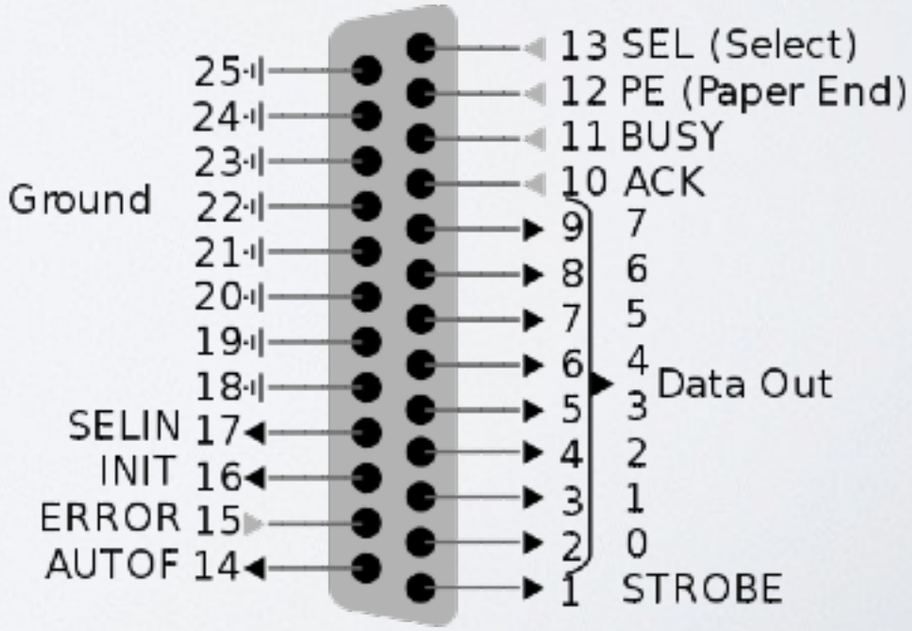
| $\overline{\text{BSY}}$ | $\overline{\text{ACK}}$ | PAP | OFON | $\overline{\text{ERR}}$ | – | – | – |
|---|---|---|---|---|---|---|---|

read-only status register (port 0x379)

| – | – | – | IRQ | DSL | $\overline{\text{INI}}$ | ALF | STR |
|---|---|---|---|---|---|---|---|

read/write control register (port 0x37a)

- Every bits (except IRQ) corresponds to a pin on 25-pin connector



# 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)

| $\overline{\text{BSY}}$ | $\overline{\text{ACK}}$ | PAP | OFON | $\overline{\text{ERR}}$ | – | – | – |
|---|---|---|---|---|---|---|---|

read-only status register (port 0x379)

| – | – | – | IRQ | DSL | $\overline{\text{INI}}$ | ALF | STR |
|---|---|---|---|---|---|---|---|

read/write control register (port 0x37a)

```
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);
}
```