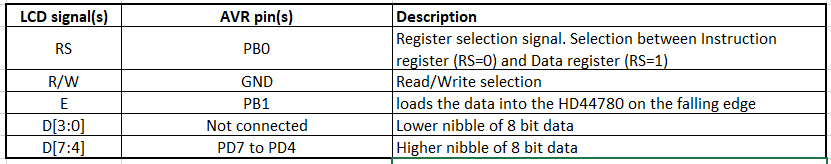
**1.**



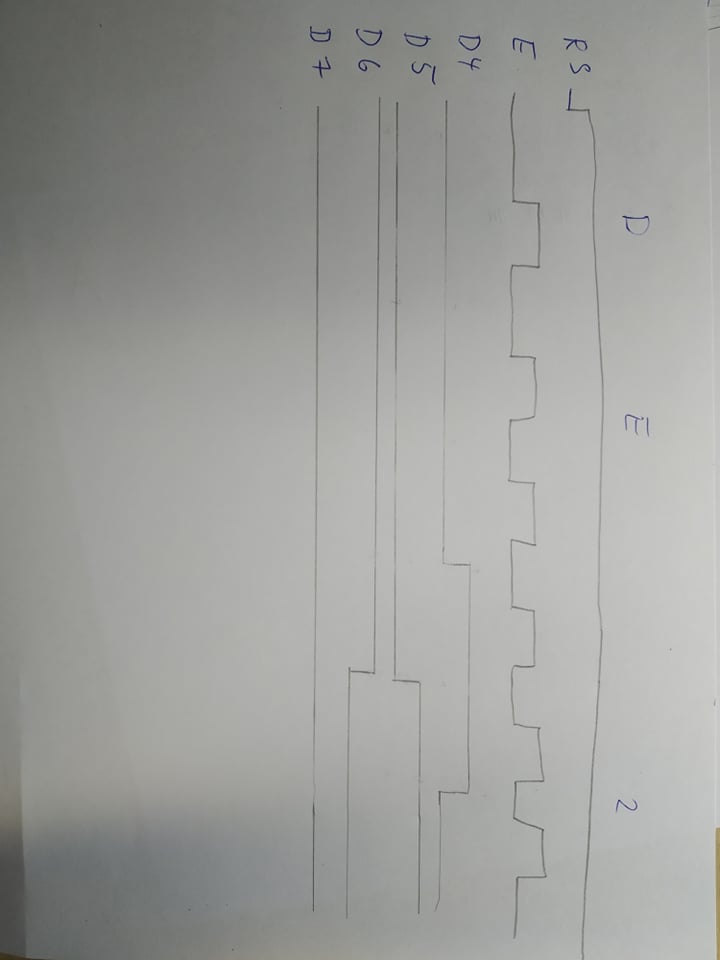
ASCII je americký kód pro výměnu informací. Je to standart přiřazení kódu k symbolu.

A-Z je kód 0x41 až 0x5a

a-z je kód 0x61 až 0x7a

0-9 je kód 0x30 až 0x39

**2.**

****

**3.**

ISR(TIMER2\_OVF\_vect)

{

static *uint8\_t* number\_of\_overflows = 0;

static *uint8\_t* tens = 0; // Tenths of a second

static *uint8\_t* secs = 0; // Seconds

static *uint8\_t* minutes = 0; // minutes

static *uint16\_t* square\_minutes = 0; //square minutes

char lcd\_string[2] = " "; // String for converting numbers by itoa()

number\_of\_overflows++;

if (number\_of\_overflows >= 6)

{

// Do this every 6 x 16 ms = 100 ms

number\_of\_overflows = 0;

tens++;

if (tens > 9)

{

tens = 0;

secs++;

if (secs > 59)

{

secs = 0;

lcd\_gotoxy(4, 0);

lcd\_puts("00");

minutes++;

if (minutes > 59)

{

minutes = 0;

lcd\_gotoxy(1, 0);

lcd\_puts("00");

lcd\_gotoxy(12, 0); //clear last number for next square value

lcd\_puts(" ");

}

square\_minutes = minutes \* minutes;

*itoa*(square\_minutes, lcd\_string, 10); // Convert decimal value to string

lcd\_gotoxy(11, 0);

lcd\_puts(lcd\_string); //show square minutes

}

}

*itoa*(tens, lcd\_string, 10); // Convert decimal value to string

lcd\_gotoxy(7, 0);

lcd\_puts(lcd\_string);

*itoa*(secs, lcd\_string, 10); // Convert decimal value to string

if (secs > 9)

{

lcd\_gotoxy(4, 0);

lcd\_puts(lcd\_string);

}

else

{

lcd\_gotoxy(5, 0);

lcd\_puts(lcd\_string);

}

*itoa*(minutes, lcd\_string, 10); // Convert decimal value to string

if (minutes > 9)

{

lcd\_gotoxy(1, 0);

lcd\_puts(lcd\_string);

}

else

{

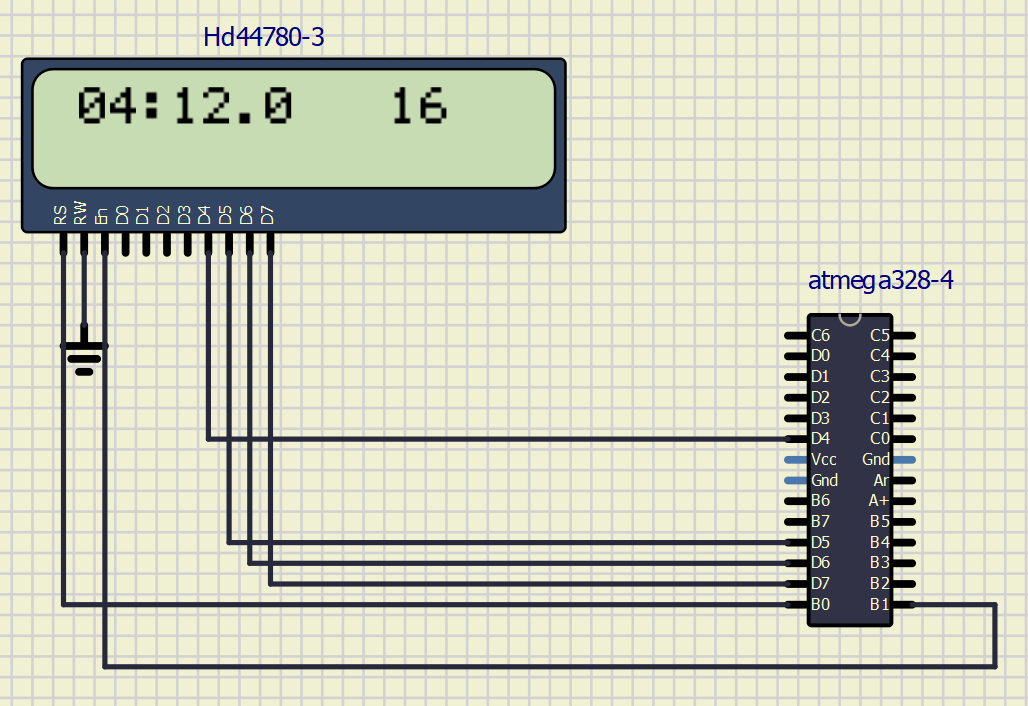
lcd\_gotoxy(2, 0);

lcd\_puts(lcd\_string);

}

}

}



**4.**

ISR(TIMER0\_OVF\_vect)

{

static *uint8\_t* symbol = 0;

static *uint8\_t* position = 0;

lcd\_gotoxy(1 + position, 1);

lcd\_putc(symbol);

symbol++;

if (symbol >5)

{

symbol = 0;

position++;

}

if (position > 9)

{

position = 0;

lcd\_gotoxy(1 + position, 1);

lcd\_puts(" ");

}

}

