06.02 LCD self-made characters introduction

The aim of this assignment is to create self-made characters and place them on the LCD screen.

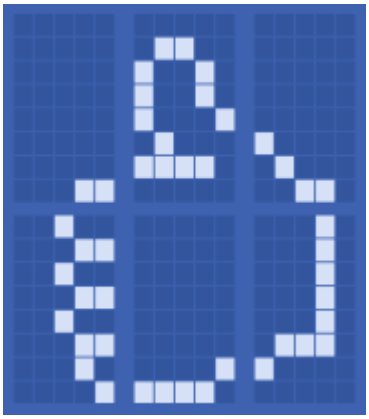
Download the following code from Canvas

```
#include <LiquidCrystal.h>
// initialize the library by associating any needed LCD interface pin
// with the arduino pin number it is connected to
const int rs = 12, en = 11, d4 = 5, d5 = 4, d6 = 3, d7 = 2;
LiquidCrystal lcd(rs, en, d4, d5, d6, d7);
byte smiley[8] = {
 0b00000,
 0b00000,
 0b01010,
 0b00000,
 0b00000,
 0b10001,
 0b01110,
 0b00000
};

void setup() {
 lcd.begin(16, 2);
 //Save smiley at position 0:
 //(There are only 8 places!)
 lcd.createChar(0, smiley);

 lcd.setCursor(0, 0); //Top left

 lcd.print("Smiley: ");
 //print 0 here is the smiley
 lcd.write(byte(0));
}

void loop() {
}
```

This code puts 1 self-made character on the LCD. There are only 8 places available to store custom characters. However, a custom character can be used in multiple places on the LCD.

06.02 Assignments

1. Create a sketch that places the following figure on the LCD.



2. Create a sketch that fills up a progress bar gradually (delay). Also show the progress as a percentage:

Try to do this with a loop so you don't need an "if" for every possibility.

Tip: On the Internet you can find online tools for generating the bit pattern.
(for example: https://omerk.github.io/lcdchargen/)