```
#include <Wire.h>
#include <LiquidCrystal_I2C.h>
#include <Servo.h>

// Initialize the LCD with the I2C address 0x27, 16 columns, and 2 rows
LiquidCrystal_I2C lcd(0x27, 16, 2);

Servo myservo;

int IR1 = 2;
int IR2 = 3;
int Slot = 4; // Total number of parking Slots

int flag1 = 0;
int flag2 = 0;

void setup() {
  Serial.begin(9600);

  lcd.begin(16,2); // Initialize the lcd
  lcd.backlight(); // Turn on the backlight

  pinMode(IR1, INPUT);
  pinMode(IR2, INPUT);

  myservo.attach(4);
  myservo.write(100);

  lcd.setCursor(0, 0);
  lcd.print("     ARDUINO    ");
  lcd.setCursor(0, 1);
  lcd.print(" PARKING SYSTEM ");
  delay(2000);
  lcd.clear();
}

void loop() {
  if (digitalRead(IR1) == LOW && flag1 == 0) {
    if (Slot > 0) {
      flag1 = 1;
      if (flag2 == 0) {
        myservo.write(0);
        Slot = Slot - 1;
      }
    } else {
      lcd.setCursor(0, 0);
      lcd.print("    SORRY :(    ");
      lcd.setCursor(0, 1);
      lcd.print("  Parking Full  ");
      delay(3000);
      lcd.clear();
    }
  }
```

```
  if (digitalRead(IR2) == LOW && flag2 == 0) {
    flag2 = 1;
    if (flag1 == 0) {
      myservo.write(0);
      Slot = Slot + 1;
    }
  }

  if (flag1 == 1 && flag2 == 1) {
    delay(1000);
    myservo.write(100);
    flag1 = 0;
    flag2 = 0;
  }

  lcd.setCursor(0, 0);
  lcd.print("    WELCOME!    ");
  lcd.setCursor(0, 1);
  lcd.print("Slot Left: ");
  lcd.print(Slot);
}
```