```
#include <LiquidCrystal_I2C.h>
#include <SoftwareSerial.h>

SoftwareSerial serialComm(10, 11);
LiquidCrystal_I2C screen(0x27, 16, 2);

const int trigger1 = 2, echo1 = 3;
const int trigger2 = 4, echo2 = 5;
const int trigger3 = 6, echo3 = 7;

const float threshold = 8.0;

int freeSpaces = 0, counter = 0, spot_E2 = 0, spot_A7 = 0, spot_F9 = 0;

void setup() {
  serialComm.begin(115200);
  pinMode(trigger1, OUTPUT);
  pinMode(trigger2, OUTPUT);
  pinMode(trigger3, OUTPUT);
  pinMode(echo1, INPUT);
  pinMode(echo2, INPUT);
  pinMode(echo3, INPUT);

  digitalWrite(trigger1, LOW);
  digitalWrite(trigger2, LOW);
  digitalWrite(trigger3, LOW);

  screen.init();
  screen.backlight();
  screen.setCursor(0, 0);
  screen.print("  IoT PARKING");
  delay(2000);
  screen.clear();
}

void loop() {
  freeSpaces = 0;
  spot_E2 = 1;
  spot_A7 = 1;
  spot_F9 = 1;

  float dist1 = measureDistance(trigger1, echo1);
  float dist2 = measureDistance(trigger2, echo2);
  float dist3 = measureDistance(trigger3, echo3);

  screen.setCursor(0, 0);
  screen.print("E2:");
  spot_E2 = updateSpot_E2(dist1, threshold);
  screen.print("A7:");
  spot_A7 = updateSpot_A7(dist2, threshold);
  screen.setCursor(0, 1);
  screen.print("F9:");
  spot_F9 = updateSpot_F9(dist3, threshold);
  screen.print("FREE:");
  screen.print(freeSpaces);
  if (counter >= 50) {
    serialComm.print(’/’);
    serialComm.print(spot_E2);
    serialComm.print(spot_A7);
    serialComm.print(spot_F9);
    serialComm.println(’/’);
    counter = 0;
  }

  counter += 1;
  delay(200);
}

int updateSpot_E2(float distance, float threshold) {
  if (distance <= threshold) {
    screen.print("0 ");
    return 0;
  } else {
    screen.print("1 ");
    freeSpaces += 1;
    return 1;
  }
}

int updateSpot_A7(float distance, float threshold) {
  if (distance <= threshold) {
    screen.print("0 ");
    return 0;
  } else {
    screen.print("1 ");
    freeSpaces += 1;
    return 1;
  }
}

int updateSpot_F9(float distance, float threshold) {
  if (distance <= threshold) {
    screen.print("0 ");
    return 0;
  } else {
    screen.print("1 ");
    freeSpaces += 1;
    return 1;
  }
}

float measureDistance(int trigger, int echo) {
  digitalWrite(trigger, HIGH);
  delayMicroseconds(10);
  digitalWrite(trigger, LOW);
  long time = pulseIn(echo, HIGH);
  float distance = time * 0.034;
  return distance / 2;
}
```