IOT CODES:

1.BLINK LED:

```
void setup() {
pinMode(13, OUTPUT);
}
void loop() {
digitalWrite(13,HIGH);
delay (5000);
digitalWrite(13,LOW);
delay(5000);
}
```

2.intensity:

```
void setup() { pinMode(5, OUTPUT); }

void loop() {
  fadeLED(0, 255, 5);
  fadeLED(255, 0, -5);
}

void fadeLED(int start, int end, int step) {
  for (int i = start; i <= end && i >= 0; i += step) {
    analogWrite(5, i);
    delay(50);
  }
}
```

3.lcd_disp:

```
#include <LiquidCrystal.h>
LiquidCrystal lcd(A0, A1, A2, A3, A4, A5);
void setup() {
  lcd.begin(16, 2);
  lcd.print("Hello World");
}
void loop() {
  for (int i = 0; i < 10; ++i) {
    lcd.clear();
    lcd.setCursor(0, 1);
    lcd.print(i);
    delay(1000);
  }
}
```

4.buzzer:

```
void setup() {
  pinMode(12, OUTPUT);
}
void loop() {
  digitalWrite(12, HIGH);
  delay(5000);
  digitalWrite(12, LOW);
  delay(5000);
}
```

5.LDR_control:

```
const int lightPin = A6;
void setup() {
  Serial.begin(9600);
}
void loop() {
  Serial.println("Light Intensity: " + String(analogRead(lightPin)));
  delay(1000);
}
```

6.temperature:

```
const int tempPin = 6;
void setup() {
  Serial.begin(9600);
}
void loop() {
  float cel = analogRead(tempPin) * 0.48828125;
  Serial.println("TEMPERATURE = " + String(cel) + "*C");
  delay(1000);
}
```

7.key_input:

```
void setup() {
  for (int i = 2; i <= 7; i++) {
    pinMode(i, OUTPUT);
    digitalWrite(i, HIGH);
  }
  pinMode(9, INPUT_PULLUP);
}
void loop() {
  if (!digitalRead(9)) {
    for (int i = 2; i <= 7; i++) {
      digitalWrite(i, LOW);
      delay(2000);
      digitalWrite(i, HIGH);
    }
  }
}
```

8.servo:

```
#include <Servo.h>
Servo myservo;
void setup() {
  myservo.attach(10);
}
void loop() {
  for (int pos = 0; pos <= 180; pos += 10) {
    myservo.write(pos);
    delay(500);  // Reduced delay
  }
  for (int pos = 180; pos >= 0; pos -= 10) {
    myservo.write(pos);
    delay(500);  // Reduced delay
  }
}
```

11.wakeup_timer:

```
void setup() {
  Serial.begin(115200);
  Serial.setTimeout(2000);
  while (!Serial) { }
  Serial.println("I'm awake, going to sleep for 30 seconds");
  delay(30000);  // 30 seconds delay
  Serial.println("Waking up now");
}
void loop() {
  // Empty loop
}
```