Experiment No. : 6

Statement Design a 4-bit counter.

Date of Exp :

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const int ledPins[] = {2, 3, 4, 5};

const int switchPin = 7;

int counter = 0;

int switchState = 0;

int lastSwitchState = 0;

void setup()

{

for (int i = 0; i < 4; i++)

{

pinMode(ledPins[i], OUTPUT);

}

pinMode(switchPin, INPUT\_PULLUP);

updateLEDs();

}

void loop()

{

switchState = digitalRead(switchPin);

if (switchState != lastSwitchState)

{

if (switchState == HIGH)

{

counter = (counter + 1) % 16;

updateLEDs();

}

delay(50);

}

lastSwitchState = switchState;

}

void updateLEDs()

{

for (int i = 0; i < 4; i++)

{

digitalWrite(ledPins[i], bitRead(counter, i));

}

}



