TASK 2

int switchstate = 0;

void setup(){

// declare the LED pins as outputs

pinMode(3,OUTPUT);

pinMode(4,OUTPUT);

pinMode(5,OUTPUT);

// declare the switch pin as an input

pinMode(2,INPUT);

}

void loop(){

// read the value of the switch

switchstate = digitalRead(2);

if (switchstate == LOW) { // button is not pressed

digitalWrite(3, HIGH); // green LED

digitalWrite(4, LOW); // red LED

digitalWrite(5, LOW); // red LED

}

else { // button is pressed

digitalWrite(3, LOW);

digitalWrite(4, LOW);

digitalWrite(5, HIGH);

delay(500); // wait for a quarter second

// toggle red LEDs

digitalWrite(4, HIGH);

digitalWrite(5, LOW);

delay(500); // wait for a quarter second

}

} // go back to the beginning of the loop

TASK 3

int switchstate = 0;

void setup(){

pinMode(3,OUTPUT);

pinMode(4,OUTPUT);

pinMode(5,OUTPUT);

pinMode(2,INPUT);

}

void loop(){

switchstate = digitalRead(2);

if (switchstate == LOW) {

digitalWrite(3, HIGH);

digitalWrite(4, HIGH);

digitalWrite(5, HIGH);

delay(500);

digitalWrite(3, LOW);

digitalWrite(4, LOW);

digitalWrite(5, LOW);

delay(500);

}

else {

digitalWrite(3, LOW);

digitalWrite(4, LOW);

digitalWrite(5, LOW);

delay(500);

}

}

Task 4

int switchstate = 0;

int switchstate1 = 0;

void setup(){

pinMode(3,OUTPUT);

pinMode(4,OUTPUT);

pinMode(5,OUTPUT);

pinMode(2,INPUT);

pinMode(1,INPUT);

}

void loop(){

switchstate = digitalRead(2);

switchstate1 = digitalRead(1);

if (switchstate == LOW && switchstate1 == LOW) {

digitalWrite(3, HIGH);

digitalWrite(4, HIGH);

digitalWrite(5, HIGH);

delay(500);

digitalWrite(3, LOW);

digitalWrite(4, LOW);

digitalWrite(5, LOW);

delay(500);

}

else if (switchstate == HIGH && switchstate1 == HIGH) {

digitalWrite(3, LOW);

digitalWrite(4, LOW);

digitalWrite(5, LOW);

}

else if (switchstate == HIGH || switchstate1 == HIGH) {

digitalWrite(3, HIGH);

digitalWrite(4, HIGH);

digitalWrite(5, HIGH);

delay(500);

digitalWrite(3, LOW);

digitalWrite(4, LOW);

digitalWrite(5, LOW);

delay(500);

}

}

void loop(){

// read the value of the switch

switchstate = digitalRead(2);

if (switchstate == LOW) { // button is not pressed

digitalWrite(3, HIGH); // green LED

digitalWrite(4, LOW); // red LED

digitalWrite(5, LOW); // red LED

}

else { // button is pressed

digitalWrite(3, LOW);

digitalWrite(4, LOW);

digitalWrite(5, HIGH);

delay(500); // wait for a quarter second

// toggle red LEDs

digitalWrite(4, HIGH);

digitalWrite(5, LOW);

delay(500); // wait for a quarter second

}

} // go back to the beginning of the loop