

# Our topics



Numbering



```

Arduino IDE 1.8
The IDE Shell Tools Help

hex

// Example sketch for the public domain.
// This example code is in the public domain.

// Hardware won't change. They've used here to
// pin 2 as input. // the number of the pushbutton pin
const int pushBtn = 2; // the number of the LED pin
// variable will change:
int pushBtnState = 0; // variable for reading the pushbutton status

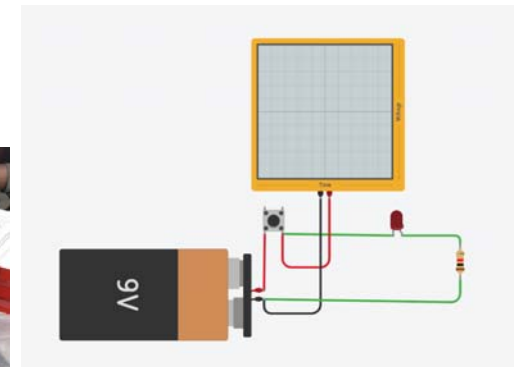
void setup() {
  // initialize the LED pin as an output:
  pinMode(LED_PIN, OUTPUT);
  // initialize the pushbutton pin as an input:
  pinMode(pushBtn, INPUT);
}

void loop() {
  // read the state of the pushbutton value:
  pushBtnState = digitalRead(pushBtn);
  // state of the pushbutton is pressed.
  // if it is, the variable is HIGH:
  if (pushBtnState == HIGH) {
    // turn LED on:
    digitalWrite(LED_PIN, HIGH);
  } else {
    // turn LED off:
    digitalWrite(LED_PIN, LOW);
  }
}
    
```

Coding



Basic electrical circuits and analysis



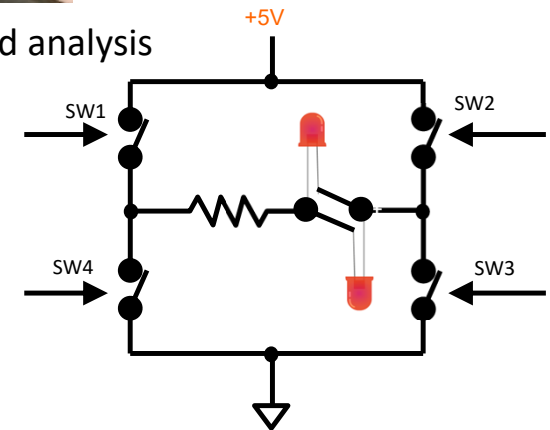
Simulation of Basic electrical circuits

## Learning objectives:

- Apply the academic knowledge of mathematics and physics to view and implement an engineering solution. Get to know “why” and “how”
- Application of sensors
- Enhance the students’ problem-solving skills



System integration

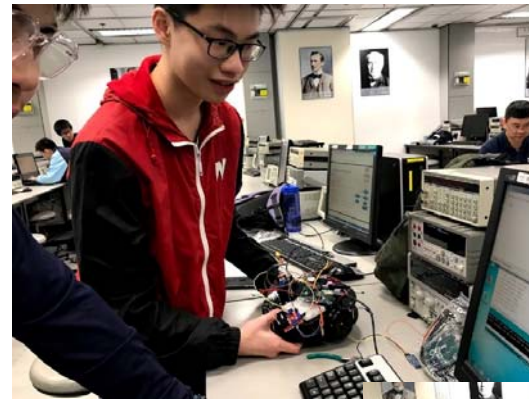


Advanced electrical circuits

Nurture academic literacy of STEM

# What is our pedagogy?

Experiential learning



Every class = academic knowledge + experiments

Tim Woo