

## **EXPERIMENT**

### **DOOR BELL USING PUSH BUTTON AND ARDUINO**

#### **CIRCUIT DIGRAM:**

#### **THEORY:**

##### **CONCEPT USED:**

- KIRCHOFF'S VOLTAGE LAW
- KIRCHOFF'S CURRENT LAW
- BUZZER BUZZING CONCEPT

##### **LEARNING & OBSERVATION:**

- CONNECTIONS IN BREADBOARD AND WIRING
- TO FORM DIFFERENT PATTERNS FROM LEDS
- HOW TO CONTROL ARDUINO & ITS CODING
- BUZZER CONCEPTS

##### **OBSERVATIONS:**

- ❖ CONTROL OF BUZZER ON PUSH BUTTON
- ❖ RELATION BETWEEN SOFTWARE AND HARDWARE
- ❖ AUTOMATION OF A DEVICE USING A PUSH BUTTON

##### **PROBLEMS AND TROUBLESHOOTING:**

- ✓ TO SELECT THE RIGHT PORT AND TYPE OF ARDUINO
- ✓ TO CHECK THE LOOSE CONNECTIONS
- ✓ TO CHECK THE CONTINUITY OF CIRCUIT
- ✓ TO CHECK THE FLOW OF CURRENT
- ✓ TO CHECK THE CONNECTIONS ACCORDING TO THE CODES
- ✓ TO CONNECT THE RIGHT PINS IN THEIR RESPECTIVE PINMODES ACCORDING TO THE CODES

##### **PRECAUTIONS:**

- HANDLE THE COMPONENTS CAREFULLY
- AVOID CONNECTING ARDUINO TILL THE CIRCUIT IS COMPLETE
- CONNECT THE LEDs WITH A RESISTANCE TO AVOID DAMAGE
- DON'T PLUG THE COMPONENTS INTO UNKNOWN CIRCUITS AND MODES

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