## EXPERIMENT

# BLUETOOTH—SMARTPHONE CONTROLLED LIGHT SYSTEM

## CIRCUIT DIGRAM:

## THEORY:

### CONCEPT USED:

- KIRCHOFF'S VOLTAGE LAW
- KIRCHOFF'S CURRENT LAW
- CONCEPT OF BLUETOOTH AND ITS CONNECTION

### LEARNING & OBSERVATION:

- CONNECTIONS IN BREADBOARD AND WIRING
- TO FORM DIFFERENT PATTERNS FROM LEDS
- HOW TO CONTROL ARDUINO & ITS CODING
- SENSOR CONCEPTS WITH CONCEPTS OF BLUETOOTH

### OBSERVATIONS:

- CONTROL OF BLUETOOTH WITH SMART PHONES
- RELATION BETWEEN SOFTWARE AND HARDWARE

### 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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