SPECIFICATION

- RASPBERRY PI 3 MODEL B+
  - Broadcom BCM2837B0, Cortex-A53 (ARMv8) 64-bit SoC @ 1.4GHz
  - 1GB LPDDR2 SDRAM
  - 2.4GHz and 5GHz IEEE 802.11.b/g/n/ac wireless LAN, Bluetooth 4.2, BLE
  - Gigabit Ethernet over USB 2.0 (maximum throughput 300 Mbps)
  - Extended 40-pin GPIO header
  - Full-size HDMI
  - 4 USB 2.0 ports
  - CSI camera port for connecting a Raspberry Pi camera
  - DSI display port for connecting a Raspberry Pi touchscreen display
  - 4-pole stereo output and composite video port
  - Micro SD port for loading your operating system and storing data
  - 5V/2.5A DC power input
  - Power-over-Ethernet (PoE) support (requires separate PoE HAT)
- On Board Applications
  - 4 Input Switches to give Digital Input
  - 4 LEDs to display Digital Output
  - 4 digit Seven segment displays
  - 16*2 Alphanumeric LCD
  - Miniature Buzzer
  - 12V SPDT Relay
  - Fingerprint Sensor Module
  - RFID Sensor Module
  - Neo 6m v2 GPS Module
  - 16 Bit I2C 4 Channel ADC using ADS1115 module
  - 40 Pin GPIO Extension Board for Raspberry Pi
  - Pilot lamp Indicator
  - Pi camera Module
  - USB to Serial converter
  - DC Motor
  - 600 Tie Points Bread Board Area provided
- Interconnection
  - All interconnections are made using 0.8mm Single stand wires.
- Test points are provided to analyze signals at various points.
- All ICS are mounted on IC Sockets.
- Bare board Tested Glass Epoxy SMOBC PCB is used.
- In-Built Power Supply of 3.3V, +5V & +12V with Power ON indication
- Attractive ABS Plastic enclosures
- Set of 0.8mm single stand wires for interconnections

LIST OF EXPERIMENTS

- Starting Raspbian OS, Familiarising with Raspberry Pi Components and interface, Connecting to ethernet, Monitor, USB.
- Displaying different LED patterns with Raspberry Pi
- Displaying Time over 4-Digit 7-segment Display using Raspberry Pi.
- Setting up Wireless Access Point using Raspberry Pi
- Fingerprint Sensor interfacing with Raspberry Pi
- Raspberry Pi GPS Module Interfacing
- IoT based Web Controlled Home Automation using Rasbperry Pi.
- Visitor Monitoring with Raspberry Pi and Pi Camera.
- Interfacing Raspberry Pi with RFID.
- Building Google Assistant with Raspberry Pi.
- Installing Windows 10 IoT Core on Raspberry Pi.

Note: Specifications are subject to change.