Visual Designer for Raspberry Pi

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Summary

Visual Designer for Raspberry Pi combines world class Proteus VSM simulation with a new flowchart programming engine and a gallery of virtual hardware to provide a truly integrated and intuitive development environment for Raspberry Pi. The peripheral gallery makes hardware design easy. Simply add a Hat or sensor from the gallery and Visual Designer will automatically place the correct circuitry on the Proteus schematic for you and add some simple methods to Visual Designer that allow you to control the hardware.

- Peripheral Gallery full of ready-made Pi Hats and Sensors.

- Drag and Drop Pi Programming with Flowcharts.

- World Class System Level Simulation, Measurement and Debugging.

- Program the equivalent Raspberry Pi hardware at the press of a button.

Variants

The following is a current list of supported variants for the Raspberry Pi:

- RPI3, RPI3 B+, RPI3 B, RPI 0W

⚠️ *Pin Headers for Raspberry Pi3 are supported, however RPI2 is not supported due to different pin headers. RPI3 0W should work as it has the same pin headers as RPI3, but this has not been tested!*

Hats

The following is a list of RPI Hats which are directly supported by the Visual Designer flowchart programming environment:

- Adafruit 16 Channel PWM Servo Hat.
- Adafruit Stepper Motor Hat.
- Adafruit 2 Channel Relay Hat.
- Pimoroni Automation Hat.

- Adafruit DC Motor Hat.
- Adafruit DC and Stepper Motor Hat.
- Adafruit 4-Channel Relay Breakout Board.
- Pimoroni PiGlow Hat.
- More coming soon...

Grove Modules

The following Grove modules and sensors are directly integrated into Visual Designer and can be added to your project straight from the Peripheral Gallery:

- Grove 128x64 OLED Display Module.
- Grove Push button.
- Differential Amplifier Module.
- Grove Buzzer Module.
- Grove Proximity sensor IR.
- Grove LED Bar.
- Grove Relay module.
- Grove Luminance Sensor Module.
- Grove Relay Module.
- Grove Sound/Volume level sensor.

- Grove Touch Sensor Module.
- Grove 4 digit numeric display.
- Grove single LED Module (Blue, Green, Yellow, Red).
- Grove Analog converter.
- Grove RGB LCD (No simulated RGB functionality).
- Grove Light sensor.
- Grove Rotary Angle Potentiometer sensor.
- Grove Slide switch.
- Grove Thermometer.
- Grove Voltage Divider Module.

Breakouts

The following breakout boards are supported directly by Visual Designer:

- 4-Channel Analog to Digital Converter breakout.
- 8-channel Analog to Digital Converter breakout.
- Buzzer breakout board.
- Piezo Sounder breakout board.
- RGB Common Cathode LED.
- Raspberry Pi Camera Module.

- GPIO Expander breakout.
- Momentary Action Push Button.
- Single LED's (blue, yellow, green, red).
- RGB Common Anode LED.
- SPDT slide switch breakout.
- TFT Display Breakout.

⚠ *More advanced users can pick, place and wire from the many thousands of embedded peripherals in the Proteus libraries. These are all included with Visual Designer but users will have to program at a lower level, using the CPU methods in Visual Designer to drive the RPi pins directly.*