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Visual Designer for Arduino

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Summary

Visual Designer for Arduino 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 Arduino. The peripheral gallery makes hardware design easy. Simply add a shield 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 Arduino Shields and Sensors.
- Drag and Drop Arduino Programming with Flowcharts.
- World Class System Level Simulation, Measurement and Debugging.
- Program the equivalent Arduino™ hardware at the press of a button.

Variants

The following is a current list of supported variants in the Arduino™ AVR® family:

- ATMEGA168, ATMEGA328, ATMEGA2560

⚠ *The full Proteus VSM for AVR Product also includes simulation of the entire range of supported Atmel AVR variants.*

Shields

The following is a list of Arduino™ shields which are directly supported by the Visual Designer flowchart programming environment:

- Any schematic of a shield that you draw yourself.
- Adafruit 16 Channel PWM Servo Shield.
- Adafruit 4 Channel Relay Numato Shield.
- Adafruit TFT Display based on ILI9341.
- Adafruit Trellis Shield.
- Adafruit Weather Station Shield.
- Arduino™ HYT271 Pressure, Humidity and Temperature Breakout.
- Motor Shield (R3) with Stepper Motor.
- Adafruit 2 Channel Relay Numato Shield.
- Adafruit Data Logger Shield.
- Adafruit NeoPixel Shield.
- Adafruit Wave Shield (Plays Audio WAV files).
- Motor Shield V2 with Servos, DC and Stepper Motors.
- Motor Shield V2 with four DC Motors.
- Motor Shield (R3) with DC Motors.

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 4-Digit Display Module.
- Momentary Action Push Button.
- Grove Buzzer Module.
- Grove Differential Amplifier Module.
- Grove I2C 12-Bit ADC Module.
- Grove 80cm InfraRed Proximity Sensor.
- Grove Luminance Sensor Module.
- Grove Relay Module.
- Grove SPDT Slide Switch Module.
- Grove Touch Sensor Module.
- Thermistor Based Temperature Sensor Module.
- Grove RGB LCD Module.
- Grove LED Bar Module.
- Grove single LED Module (Blue, Green, Yellow, Red).
- Grove Light Sensor Module.
- Grove Rotary Angle Potentiometer based sensor.
- Grove RTC Module.
- Grove Servo Motor Module.
- Grove Sound/Volume Level Sensor.
- Grove Ultrasonic Ranger Module.
- Grove Voltage Divider Module.
- Grove RS232/TTY Terminal Module.

Breakouts

The following breakout boards are supported directly by Visual Designer:

- Arduino™ Alphanumeric LCD Breakout Board
- Arduino™ DHT22 Humidity Temperature Breakout Board
- Arduino™ MCP3208 12bit ADC Breakout Board
- Arduino™ Real Time Clock Breakout Board
- Arduino™ TC74 Temperature Sensor Breakout Board
- Adafruit K Type Thermocouple Amplifier AD8495 Breakout
- HYT271 Pressure, Humidity and Temperature Breakout
- Arduino™ SPDT slide Switch Breakout
- LED Breakout (Red/Blue/Green/Yellow)
- Generic Input Voltage Device Breakout
- Arduino™ Servo Motor Breakout Board
- Arduino™ GPS Breakout Board
- Arduino™ Rotary Angle Potentiometer Breakout Board
- Simple, momentary action push button breakout
- Arduino™ Piezo Buzzer Breakout Board
- Arduino™ DHT11 Humidity Temperature Breakout Board.
- Arduino™ MCP23008 IO Expander Breakout Board
- Arduino™ MCP4921 12bit DAC Breakout Board
- Arduino™ SD Card with SPI Interface Breakout Board
- Arduino™ MCP23008 Numeric Keypad Breakout Board
- Arduino™ MPX4250AP Pressure Gauge Breakout Board
- Arduino™ PCD8544 Nokia 3310 LCD Breakout Board

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 Arduino pins directly.