

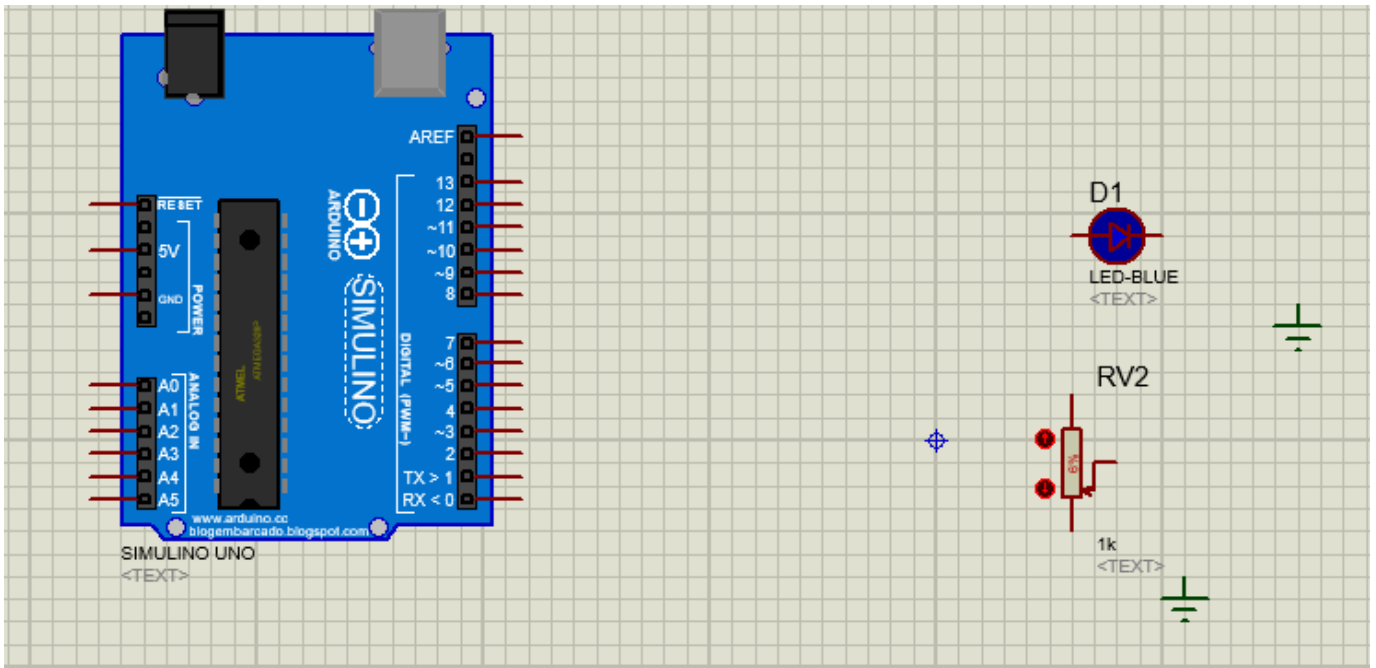


LED with Variable resistor

By:

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1. Add Arduino UNO and ground as you learned in previous lectures.
2. Add LED and variable resistor.

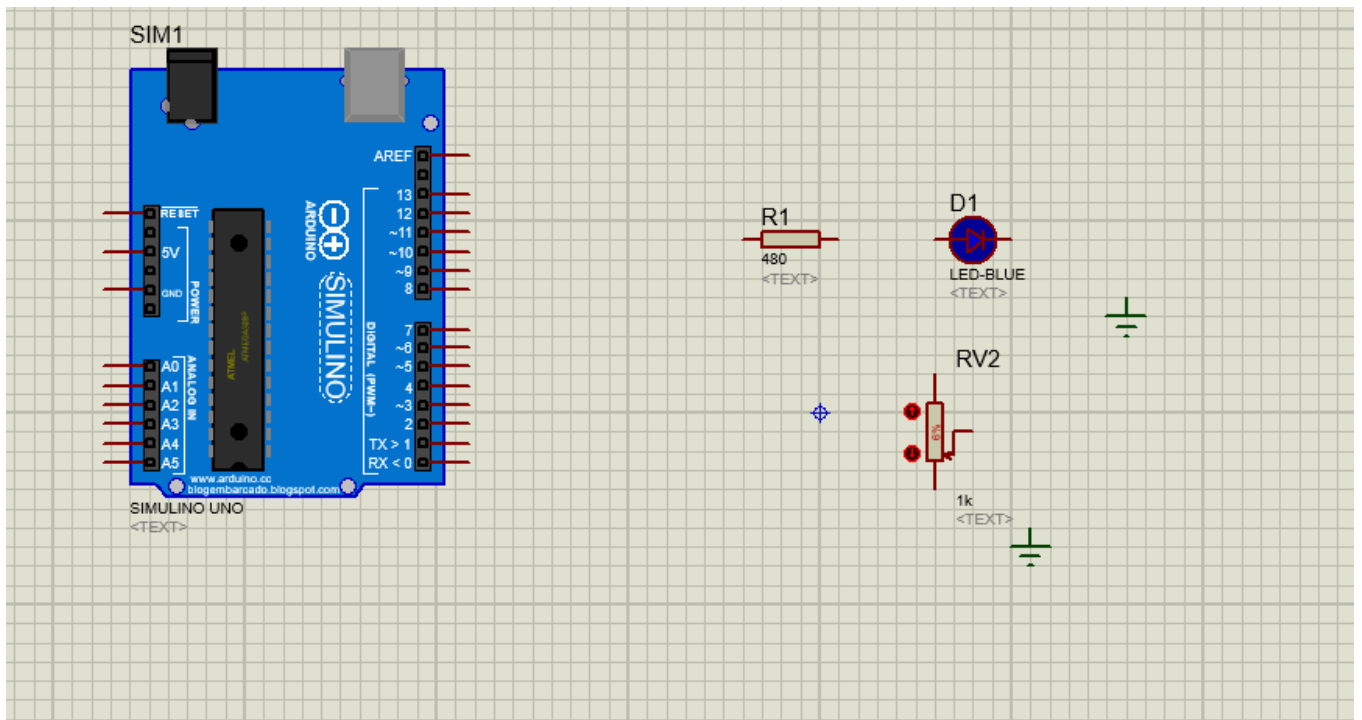


3. Add resistor (480).

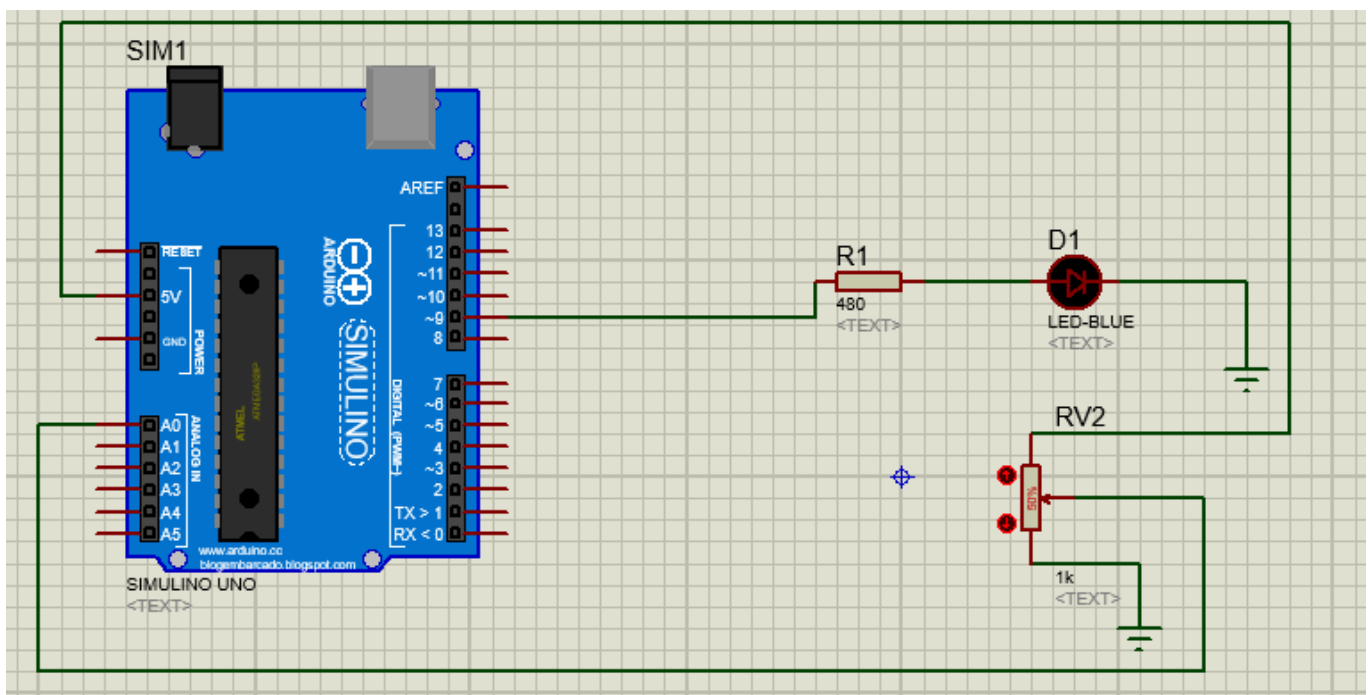
The 'Pick Devices' dialog box is open, showing search results for 'resistor'. The 'Keywords' field contains 'resistor'. The 'Category' is set to 'Resistors'. The 'Sub-category' is set to '10 Watt Wirewound'. The 'Manufacturer' is set to '(All Manufacturers)'. The 'Showing local results: 11756' table lists various resistor types and values.

Device	Library	Description
NTSD0XH103	NTC	Temperature Sensor, Lead Insulation Type, 10k ...
NTSD0XM202	NTC	Temperature Sensor, Lead Insulation Type, 2k 21...
NTSD0XR502	NTC	Temperature Sensor, Lead Insulation Type, 5k 2...
NTSD0XV103	NTC	Temperature Sensor, Lead Insulation Type, 10k ...
POT	DEVICE	Variable resistor / potentiometer with lin or log l...
POT	ACTIVE	
POT-HG	ACTIVE	High Granularity Interactive Potentiometer (Lin, ...
PRESET	DEVICE	Preset potentiometer / trimmer
PULLDOWN	DSIMMDLS	Digital Primitive Model Of A Pull-Down Resist...
PULLUP	DSIMMDLS	Digital Primitive Model Of A Pull-Up Resistor
PUMD13	BIPOLAR	NPN/PNP resistor-equipped transistors; R1 = 4...
RES	DEVICE	Generic resistor symbol
RES-PRE	DEVICE	Preset potentiometer / trimmer
RES-VAR	DEVICE	Variable resistor / potentiometer
RES10SIPB	DEVICE	Resistor network bus configuration with comm...
RES10SIPD	DEVICE	Resistor network double configuration.
RES16DIPB	DEVICE	Resistor network bus configuration.
RES16DIPD	DEVICE	Resistor network double configuration.
RES16DIPIS	DEVICE	8 way resistor network.
RES6SIPB	DEVICE	Resistor network bus configuration with comm...
RES6SIPD	DEVICE	Resistor network double configuration.
RES8SIPB	DEVICE	Resistor network bus configuration with comm...
RES8SIPD	DEVICE	Resistor network double configuration.
RFSISTOR	ASIMMDLS	Analog resistor primitive

The 'Preview' window shows a red resistor symbol. The 'PCB Preview' window shows a red resistor symbol. The 'OK' button is highlighted.



4. Connect the circuit as shown.



* Variable resistor has 3 pins.

- The first pin is **Vcc**, so it should be connected to 5V.
- The center pin is its **Data Pin** and variable resistor gives its output when it measures volt.
- The third pin is **GND** and should be connected to the ground of the battery/source.

Sketch

```
int potPin = A0;
int potValue = 0;
int led = 9;
void setup() {
  pinMode(led, OUTPUT);
}
void loop() {
  potValue = analogRead(potPin);

  analogWrite(led, potValue/4);

  delay(10);
}
```