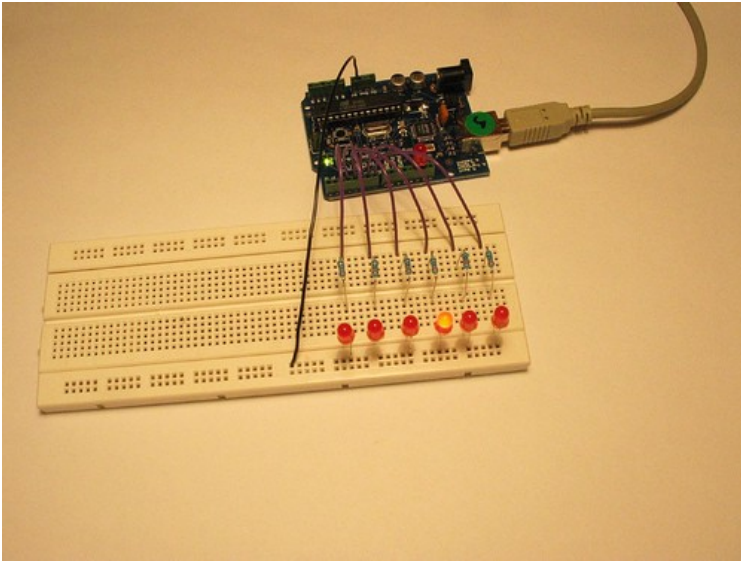


Sample Quiz

The programs below make use of 6 LEDs connected to pins 2 - 7 on the Arduino board using 220 Ohm resistors. The setup is depicted below.



Knight Rider 1	Knight Rider 2
<pre>int pin2 = 2; int pin3 = 3; int pin4 = 4; int pin5 = 5; int pin6 = 6; int pin7 = 7; int timer = 100; void setup(){ pinMode(pin2, OUTPUT); pinMode(pin3, OUTPUT); pinMode(pin4, OUTPUT); pinMode(pin5, OUTPUT); pinMode(pin6, OUTPUT); pinMode(pin7, OUTPUT); } void loop() { digitalWrite(pin2, HIGH); delay(timer); digitalWrite(pin2, LOW); delay(timer); digitalWrite(pin3, HIGH); delay(timer); digitalWrite(pin3, LOW);</pre>	<pre>int pinArray[] = {2, 3, 4, 5, 6, 7}; int count = 0; int timer = 100; void setup(){ // we make all the declarations at once for (count=0;count<6;count++) { pinMode(pinArray[count], OUTPUT); } } void loop() { for (count=0;count<6;count++) { digitalWrite(pinArray[count], HIGH); delay(timer); digitalWrite(pinArray[count], LOW); delay(timer); } for (count=5;count>=0;count--) { digitalWrite(pinArray[count], HIGH); delay(timer); digitalWrite(pinArray[count], LOW); delay(timer); } }</pre>

<pre>delay(timer); digitalWrite(pin4, HIGH); delay(timer); digitalWrite(pin4, LOW); delay(timer); digitalWrite(pin5, HIGH); delay(timer); digitalWrite(pin5, LOW); delay(timer); digitalWrite(pin6, HIGH); delay(timer); digitalWrite(pin6, LOW); delay(timer); digitalWrite(pin7, HIGH); delay(timer); digitalWrite(pin7, LOW); delay(timer); digitalWrite(pin6, HIGH); delay(timer); digitalWrite(pin6, LOW); delay(timer); digitalWrite(pin5, HIGH); delay(timer); digitalWrite(pin5, LOW); delay(timer); digitalWrite(pin4, HIGH); delay(timer); digitalWrite(pin4, LOW); delay(timer); digitalWrite(pin3, HIGH); delay(timer); digitalWrite(pin3, LOW); delay(timer); }</pre>	
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Questions:

1. Identify the following in program Knight1:
 - A variable declaration.
 - The statements in the procedure named setup().
 - A procedure call.

2. Identify the following in program Knight 2:

- An array declaration.
- A for-loop
- The statements that are executed each time the for-loop identified above is repeated.

3. Do the programs Knight 1 and Knight 2 do the same thing?

4. Describe what program Knight 1 does.