

```
// Driving 3-phase Brushless DC Motor with Sinusoidal Wave
// This sketch is based on the code for the stroboscope project by eLABZ.
// (http://elabz.com/bldc-motor-with-arduino-circuit-and-software/)
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```

```
const int motorDelayActual = 20;
const int motorPin1 =9;
const int motorPin2 =10;
const int motorPin3 =11;
const int motorPinState[]={127, 111, 94, 78, 64, 50, 37, 26, 17, 9, 4, 1, 0, 1, 4, 9, 17, 26, 37, 50, 64, 78,
                             94, 111, 127, 144, 160, 176, 191, 205, 218, 229, 238, 245, 251, 254, 255,
                             254, 251, 245, 238, 229, 218, 205, 191, 176, 160, 144, 127};
```

```
int currentStepA = 0;
int currentStepB = 16;
int currentStepC = 32;
long lastMotorDelayTime = 0;
```

```
void setup () {
  pinMode(motorPin1, OUTPUT);
  pinMode(motorPin2, OUTPUT);
  pinMode(motorPin3, OUTPUT);
}
```

```
void loop () {
  if((millis() - lastMotorDelayTime) > motorDelayActual) {
    currentStepA = currentStepA ++;
    if(currentStepA > 47) currentStepA = 0;
    if(currentStepA < 0) currentStepA = 47;

    currentStepB = currentStepB ++;
    if(currentStepB > 47) currentStepB = 0;
    if(currentStepB < 0) currentStepB = 47;

    currentStepC = currentStepC ++;
    if(currentStepC > 47) currentStepC = 0;
    if(currentStepC < 0) currentStepC = 47;

    lastMotorDelayTime =millis();
    analogWrite(motorPin1, motorPinState[currentStepA]);
    analogWrite(motorPin2, motorPinState[currentStepB]);
    analogWrite(motorPin3, motorPinState[currentStepC]);
  }
}
```

```
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```