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// I2C Digital Potentiometer
// by Nicholas Zambetti <http://www.zambetti.com>
// and Shawn Bonkowski <http://people.interaction-ivrea.it/s.bonkowski/>
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// Demonstrates use of the Wire library
// Controls AD5171 digital potentiometer via I2C/TWI
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// Created 31 March 2006
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// This example code is in the public domain.
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```
#include <Wire.h>
```

```
void setup() {
  Wire.begin(); // join i2c bus (address optional for master)
}
```

```
byte val = 0;
```

```
void loop() {
  Wire.beginTransmission(44); // transmit to device #44 (0x2c)
  // device address is specified in datasheet
  Wire.write(byte(0x00)); // sends instruction byte
  Wire.write(val); // sends potentiometer value byte
  Wire.endTransmission(); // stop transmitting
```

```
  val++; // increment value
  if (val == 64) { // if reached 64th position (max)
    val = 0; // start over from lowest value
  }
  delay(500);
}
```