

# SYNTHIAM

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## I2c Ezb Arduino1 Sensor

Hello all,

I wail back I posted some information on using an Arduino as a I2C Sensor controller to use with the EZB3&4

I will post this in 3 stages ..

**Stage one..** right here right now.

In this video you can see how im using the arduino to read the ultrasonic sensor . that in turn is being read by the EZB board via I2C.

This is the only code needed to read the ping for the EzBuilder script

```
``` print(I2CRead(0, 2,6 )) ```
```

The code for the...

Last Updated: 10/9/2014

## Step 1

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```
``` print(I2CRead(0, 2,6 )) ```
```

The code for the Arduino is

```
```  
  
#include  
  
void setup() { Wire.begin(2);  
Wire.onRequest(requestEvent); }  
  
void loop() { delay(100); }  
  
void requestEvent() {  
  
long duration, inches, cm; pinMode(9, OUTPUT);// attach pin 3 to Trig digitalWrite(9,  
LOW); delayMicroseconds(2); digitalWrite(9, HIGH); delayMicroseconds(5);  
digitalWrite(9, LOW);  
  
pinMode (8, INPUT);//attach pin 4 to Echo duration = pulseIn(8, HIGH); // convert the  
time into a distance inches = microsecondsToInches(duration); cm =  
microsecondsToCentimeters(duration);  
}
```

```
String outtoezb;
```

```
outtoezb += "D1="; outtoezb += inches; outtoezb += ":";
```

```
char tempout[outtoezb.length() + 1];
```

```
outtoezb.toCharArray(tempout,outtoezb.length() + 1); Wire.write(tempout); }
```

```
long microsecondsToInches(long microseconds) {
```

```
return microseconds / 74 / 2; }
```

```
long microsecondsToCentimeters(long microseconds) {
```

```
return microseconds / 29 / 2; }
```

```
...
```

Phase two will be adding the 3 other ping sensors and a temp sensor to the arduino . I hope to have it all encased together will plugs and off the project board.

I will follow up on this thread as the next phase is done I will provide the code for EzBuilder as well as the arduino code.

Hope yall can use it.