//TMP36 Pin Variables

int sensorPin = 0; //the analog pin the TMP36's Vout (sense) pin is connected to

//the resolution is 10 mV / degree centigrade with a

//500 mV offset to allow for negative temperatures

/\*

\* setup() - this function runs once when you turn your Arduino on

\* We initialize the serial connection with the computer

\*/

void setup()

{

Serial.begin(9600); //Start the serial connection with the computer

//to view the result open the serial monitor

}

void loop() // run over and over again

{

//getting the voltage reading from the temperature sensor

int reading = analogRead(sensorPin);

// converting that reading to voltage, for 3.3v arduino use 3.3

float voltage = reading \* 5.0;

voltage /= 1024.0;

// print out the voltage

Serial.print(voltage); Serial.println(" volts");

// now print out the temperature

float temperatureC = (voltage - 0.5) \* 100 ; //converting from 10 mv per degree with 500 mV offset

//to degrees ((voltage - 500mV) times 100)

Serial.print(temperatureC); Serial.println(" degrees C");

// now convert to Fahrenheit

float temperatureF = (temperatureC \* 9.0 / 5.0) + 32.0;

Serial.print(temperatureF); Serial.println(" degrees F");

delay(1000); //waiting a second

}