

```
double temperature = 0.0;

void setup()
{
  // Use serial port for debug print
  Serial.begin(9600);

  // register API variable
  Particle.variable("temperature", &temperature, DOUBLE);
  pinMode(A7, INPUT);
}

void loop()
{
  int analogValue = analogRead(A7);
  double voltage = 3.3 * ((double)analogValue / 4095.0);

  // http://www.analog.com/static/imported-files/data\_sheets/TMP35\_36\_37.pdf
  temperature = (voltage - 0.5) * 100;
  Serial_printf("voltage=%g temperature=%g", voltage, temperature);
  delay(500);
}
```