

```
int ledPin=13;
int sensorPin=0;

double alpha=0.75;
int period=20;
double change=0.0;

void setup()
{
pinMode(ledPin,OUTPUT);
}

void loop()
{
static double oldValue=0;
static double oldChange=0;
int rawValue=analogRead(sensorPin);
double value=alpha*oldValue+(1-alpha)*rawValue;
change=value-oldValue;

digitalWrite(ledPin,(change<0.0&&oldChange>0.0));

oldValue=value;
oldChange=change;
delay(period);
}
```