



Hello All,

I am here with a new idea and script, "Zigzag Waves". This Indicator creates 3 Zigzags with different lengths, keeps the lengths of each zigzag wave and calculates/draws average waves for each zigzag . optionally It can reset the wave when zigzag direction changes and new highest/lowest found. And optionally it draws Exponential Moving Average ( EMA ) of the sum of waves. This idea is very new and at the moment there is no optimization for the Zigzag Periods. Maybe we altogether can improve the idea and find the best zigzag periods for different symbols and time frames.

Using the options You can play with the periods, add/remove EMA , set its color and reset the waves on new Highest/Lowest. As far as I see resetting the waves on new Highest/Lowest may bring better results.

if we enable "Reset the waves on new Highest/Lowest":



Using different periods and EMA length:



P.S. If you have ideas to improve this script, drop a comment under the script please.

Enjoy!

[Website](#)

Açık kaynak kodu komut dosyası ⓘ

Gerek TradingView rühuyla, bu belgenin yazarı, yazarının anlayabilmesi ve doğrulanabilirliği için onu açık kaynak olarak yayınladı. Yazarı eline sahip! Bu nedenle ücretsiz olarak kullanabilirsiniz, ancak bu kodun bir yanında

**Feragatname**

Bilgiler ve kayıtlar, TradingView tarafından sağlanan veya onaylanan finansal, yatırımcı, işlem veya diğer türden tavsiye veya tavsiyeler anlatma gelmez ve tekil etmez. [Kullanım Şartları](#)'nda daha fazlasını okuyun.

Bu komut dosyasını bir grafikte kullanmak ister misiniz? ⓘ

FAVORİ GÖSTERGELER EKLE

```

1 // This source code is subject to the terms of the Mozilla Public License 2.0 at https://mozilla.org/MPL/2.0/
2 // © LonesomeTheBlue
3
4 //@version=5
5 indicator("ZigZag Waves", max_bars_back = 500, max_lines_count = 300)
6 prd1 = input.int(defval = 11, title="Period 1", minval = 2, maxval = 55)
7 prd2 = input.int(defval = 21, title="Period 2", minval = 2, maxval = 55)
8 prd3 = input.int(defval = 34, title="Period 3", minval = 2, maxval = 55)
9 emalength = input.int(defval = 3, title = "EMA length", minval = 1)
10 resetonewhl = input.bool(defval = false, title = "Reset wave on new Highest/Lowest")
11 showohl = input.bool(defval = true, title = "Show OHLC line", inline = "ema")
12 emacolor = input.color(defval = color.blue, title = "", inline = "ema")
13 linewidth = input.int(defval = 2, title = "", minval = 1, maxval = 4, inline = "ema")
14
15 // get highest/lowest for each period
16 phs = array.from(
17 ta.highestbars(hlgh, prd1) == 0 ? high : na,
18 ta.highestbars(hlgh, prd2) == 0 ? high : na,
19 ta.highestbars(hlgh, prd3) == 0 ? high : na)
20 pls = array.from(
21 ta.lowestbars(lwgh, prd1) == 0 ? low : na,
22 ta.lowestbars(lwgh, prd2) == 0 ? low : na,
23 ta.lowestbars(lwgh, prd3) == 0 ? low : na)
24
25 // calculate zigzag direction
26 var dirs = array.new_int(0)
27 olddirs = array.copy(dirs)
28 for x = 0 to 2
29     array.set(dirs, x, (array.get(phs, x) and na(array.get(pls, x))) ? 1 :
30         (array.get(pls, x) and na(array.get(phs, x))) ? -1 :
31             array.get(dtrs, x))
32
33 var max_array_size = 6
34 var zigzag1 = array.new_float(0)
35 var zigzag2 = array.new_float(0)
36 var zigzag3 = array.new_float(0)
37
38 // add new point to zigzag
39 add_to_zigzag(zigzag, value)>
40     array.unshift(zigzag, bar_index)
41     array.unshift(zigzag, value)
42     if array.size(zigzag) > max_array_size
43         array.pop(zigzag)
44         array.pop(zigzag)
45
46 // there is a move on same direction, update the zigzag level
47 update_zigzag(zigzag, dir, value)>
48     if array.size(zigzag) == 0
49         add_to_zigzag(zigzag, value)
50     else
51         if (dir == 1 and value > array.get(zigzag, 0)) or (dir == -1 and value < array.get(zigzag, 0))
52             array.set(zigzag, 0, value)
53             array.set(zigzag, 1, bar_index)
54             0.
55
56 // calculate zigzag
57 calculate_zigzag(zigzag, dir, ph, pl, dirchanged)>
58     if ph or pl
59         if dirchanged
60             add_to_zigzag(zigzag, dir == 1 ? ph : pl)
61         else
62             update_zigzag(zigzag, dir, dir == 1 ? ph : pl)
63
64 // Calculate zigzags with different periods
65 calculate_zigzag(zigzag1, array.get(dirs, 0), array.get(phs, 0), array.get(pls, 0), array.get(dtrs, 0) != array.get(olddirs, 0))
66 calculate_zigzag(zigzag2, array.get(dirs, 1), array.get(phs, 1), array.get(pls, 1), array.get(dtrs, 1) != array.get(olddirs, 1))
67 calculate_zigzag(zigzag3, array.get(dirs, 2), array.get(phs, 2), array.get(pls, 2), array.get(dtrs, 2) != array.get(olddirs, 2))
68
69 // keep total wave length
70 var int [] totallength = array.from(0, 0, 0)
71 var int [] totalchange = array.from(0, 0, 0)
72 int [] cyclelen = array.from(0, 0, 0)
73 var cycleAnddir = array.from(-1000, 1, -1000, 1, -1000, 1)
74
75 for x = 0 to 2
76     float [] zigzag = x == 0 ? zigzag1 : x == 1 ? zigzag2 : zigzag3
77
78     if (resetonewhl or array.get(cycleAnddir, x * 2) == -1000) and
79         array.get(totallength, x) and array.size(zigzag) >= max_array_size
80         array.set(totallength, x, array.get(totallength, x) + math.round(array.get(zigzag, 3) - array.get(zigzag, 5)) + 1)
81
82     array.set(cyclelen, x, math.round(array.get(totallength, x) / (array.get(totalchange, x) * 2)))
83
84     if (resetonewhl or array.get(cycleAnddir, x * 2) == -1000) and
85         array.get(totalchange, x) > 10 and
86         array.get(dirs, x) != array.get(olddirs, x)
87         array.set(cycleAnddir, x * 2, array.get(dirs, x))
88         array.set(cycleAnddir, x * 2 + 1, array.get(dtrs, x))
89         array.set(cycleAnddir, x * 2 + 1, array.get(dirs, x))
90         else if array.get(cycleAnddir, x * 2) > 1000
91             array.set(cycleAnddir, x * 2, array.get(cycleAnddir, x * 2) + array.get(cycleAnddir, x * 2 + 1))
92             if array.get(cycleAnddir, x * 2) < array.get(cyclelen, x) or array.get(cycleAnddir, x * 2) > array.get(cyclelen, x)
93                 array.set(cycleAnddir, x * 2 + 1, -1 * array.get(cycleAnddir, x * 2) + 2 * array.get(cycleAnddir, x * 2 + 1))
94             if array.get(cycleAnddir, x * 2) > array.get(cyclelen, x)
95                 array.set(cycleAnddir, x * 2, array.get(cyclelen, x) - 1)
96             else if array.get(cycleAnddir, x * 2) < -array.get(cyclelen, x)
97                 array.set(cycleAnddir, x * 2, -array.get(cyclelen, x) + 1)
98
99 float wave1 = math.sign(array.get(cycleAnddir, 0)) * math.sqrt(math.pow(array.get(cyclelen, 0), 2) - math.pow(array.get(cyclelen, 0) - math.abs(array.get(cycleAnddir, 0)), 2))
100 float wave2 = math.sign(array.get(cycleAnddir, 2)) * math.sqrt(math.pow(array.get(cyclelen, 2), 2) - math.pow(array.get(cyclelen, 2) - math.abs(array.get(cycleAnddir, 2)), 2))
101 float wave3 = math.sign(array.get(cycleAnddir, 4)) * math.sqrt(math.pow(array.get(cyclelen, 2), 2) - math.pow(array.get(cyclelen, 2) - math.abs(array.get(cycleAnddir, 4)), 2))
102
103 wavecolor(wave, cons)>
104     cons = math.max(0, math.min(255, cons))
105     wave > 0 ? (wave >= wave[1] ? color.rgb(0, cons, 0, 0) : color.rgb(cons, 0, 0, 0)) : (wave <= wave[1] ? color.rgb(0, 0, 0, 0) : color.rgb(0, 0, 0, 0))
106
107 plot(wave1, color = wavecolor(wave1, 190 + math.pow(wave1, 2) / 3), style = plot.style_area)
108 plot(wave2, color = wavecolor(wave2, 170 + math.pow(wave2, 2) / 3), style = plot.style_area)
109 plot(wave3, color = wavecolor(wave3, 150 + math.pow(wave3, 2) / 3), style = plot.style_area)
110
111 waveema = ta.ema(wave1 + wave2 + wave3, emalength)
112 plot(waveema ? waveema : na, color = emacolor, linewidth = linewidth)
113

```

**Yorumlar**

Yararlı veya teşvik edici bir yorum bırakın. Piyasalarla birlikte hakim olalım

Alışıklarıza yorum

Yorum Paylaş



TheStockOdin PREMIUM · Ara 31, 2021 200

great ideal

100 koin

+2 ▲ Cevap Gönder

 **LonesomeTheBlue** WIZARD · Ara 31, 2021 cevap 200 koin  
@NinjaNew, Thanks Mate!  
+1 ▲ Cevap Gönder

 **Bjorgum** PREMIUM · Ara 31, 2021 cevap 200 koin  
Thank you for your continued contributions to the community and gracious selflessness in willing to share  
+1 ▲ Cevap Gönder

 **LonesomeTheBlue** WIZARD · Ara 31, 2021 cevap 200 koin  
@Bjorgum, Thank you Bro!  
▲ Cevap Gönder

 **RicardoSantos** WIZARD · Ara 31, 2021 cevap 200 koin  
thank you for improving pine script for every one :)  
+1 ▲ Cevap Gönder

 **LonesomeTheBlue** WIZARD · Ara 31, 2021 cevap 200 koin  
@RicardoSantos, Thank you dude :)  
▲ Cevap Gönder

 **Aashishniranjan29** · Ara 31, 2021 cevap 200 koin  
indicator look cool but how to use it sir please reply  
+2 ▲ Cevap Gönder

 **LonesomeTheBlue** WIZARD · Ara 31, 2021 cevap 200 koin  
@ashishniranjan29, you can use EMA line while analyzing.  
+1 ▲ Cevap Gönder

 **LonesomeTheBlue** WIZARD · Ara 31, 2021 cevap 200 koin  
@ashishniranjan29, you also should focus when the EMA (blue) line is above or below the waves  
+1 ▲ Cevap Gönder

 **Murphy67** PRO+ · Oca 4 cevap 200 koin  
Hi LonesomeTheBlue, it looks great. If you can find HH or LL of the specific period after the each waves completed, it will be very useful...  
+1 ▲ Cevap Gönder

 **BADLIXM15** · Ara 31, 2021 cevap 200 koin  
Wish you a happy new year! Thank you to all your contributions to the community!  
+1 ▲ Cevap Gönder

 **UmedT** PRO+ · Ara 31, 2021 cevap 200 koin  
Great! How one uses this indicator in trading?  
+1 ▲ Cevap Gönder

 **Pratik\_4Clover** · Ara 31, 2021 cevap 200 koin  
Interesting idea, thanks!!  
+1 ▲ Cevap Gönder

 **mrselv** · Ara 31, 2021 cevap 200 koin  
looks great and have to test  
+1 ▲ Cevap Gönder

 **ashdays** PRO+ · Ara 31, 2021 cevap 200 koin  
Thank you  
+1 ▲ Cevap Gönder

 **S** **salwalliyas** · Ara 31, 2021 cevap 200 koin  
ilove you are have me seeit  
+1 ▲ Cevap Gönder

 **joelly3d** PREMIUM · Ara 31, 2021 cevap 200 koin  
Nifty as always. Will check it out tomorrow!  
+1 ▲ Cevap Gönder

 **P** **peacefulLizard50262** PREMIUM · Ara 31, 2021 cevap 200 koin  
Man I've got to learn arrays, this is super cool! I love pine because its so visual and I can see what I am programming. Love your work as always!  
+1 ▲ Cevap Gönder

 **LonesomeTheBlue** WIZARD · Ara 31, 2021 cevap 200 koin  
@peacefulLizard50262, Thank you, yes we all love Pine Language! You can learn whatever you want in Pine Language with some practice.  
+1 ▲ Cevap Gönder

 **rhone9440** PREMIUM · Mar 25 cevap 200 koin  
Thank you, Lonesome.  
▲ Cevap Gönder

 **A** **ayseyliz1970** · Şubat 13 · Android İçin TradingView cevap 200 koin  
Hello Sir, I'm following you, you are doing great work, I request you to develop an indicator for shoulder head shoulder pattern, have a nice day.