

Swing Trading Strategy with Williams %R, CCI, and EMA (NIFTY500)

To identify swing trade opportunities in the NIFTY500 universe, we will use a combination of **Williams %R**, **Commodity Channel Index (CCI)**, and a key **Exponential Moving Average (EMA)**. Below are the recommended indicator settings and a strategy for both long and short trades held for roughly 3–4 weeks (to capture intermediate momentum swings).

Recommended Indicator Settings

- **Williams %R:** Use a **14-period** Williams %R (the default lookback) for daily charts, which is well-suited for swing trading timeframes ¹. Readings above **-20** indicate an overbought condition, and readings below **-80** indicate an oversold condition ². (Williams %R ranges from 0 to -100 by convention, with 0 = most overbought, -100 = most oversold.) A 14-day %R strikes a good balance for short-to-mid-term momentum swings ¹, though some traders may use up to 21 days for slight smoothing.
- **CCI:** Use a **14- to 20-period** CCI on daily charts for swing trading. A 14-day CCI is a common starting point that offers responsive signals, while a 20-day CCI smooths out some noise ³. Key levels are **+100** and **-100** – a CCI above +100 suggests the stock is **overbought** (significantly above its average price), and below -100 suggests it is **oversold** ⁴. Many strategies treat crossings of these levels as signals (e.g. CCI falling below -100 then rising back above it can be a buy signal, as explained below) ⁵.
- **EMA (Trend Filter):** Use a **50-day EMA** to gauge the intermediate-term trend. Swing traders often rely on the 50-period EMA to define the stock's primary trend direction ⁶. If price is above the 50 EMA, the bias is bullish; if below, the bias is bearish. *(Note: Some traders also watch the 20-day EMA for shorter swings ⁷, but the 50-day EMA provides a more robust trend filter for a 3–4 week trade horizon.)*

Strategy Overview

We will **scan the NIFTY500 stocks daily** for those meeting our criteria, using the 50-day EMA as a trend filter and Williams %R & CCI for timing **entries**. The idea is to trade **with the trend** (going long in uptrends, short in downtrends) but **enter on pullbacks or bounces** identified by the oscillators. Using both Williams %R and CCI together gives dual confirmation of momentum extremes ⁸, helping reduce false signals ⁹. Below are the specific conditions for long and short setups, along with entry and exit rules:

Long Trade Setup (Buy on Pullback in Uptrend)

1. **Trend Filter:** Identify stocks in an **uptrend** – for example, **price above the 50-day EMA** (indicating bullish intermediate momentum) ⁶. This ensures we only buy stocks with a positive bias.

2. **Oversold Condition:** Among those uptrending stocks, look for a **pullback**:
3. **Williams %R** drops below **-80**, entering oversold territory ¹⁰.
4. **CCI** drops below **-100**, indicating the stock is oversold with strong downward momentum ¹¹.
These oversold readings signal that the stock has pulled back within its uptrend and may be poised to resume rising. (Using both indicators together filters for significant, genuine pullbacks – Williams %R measures price relative to recent range, and CCI captures deviation from the average price.)
5. **Entry Trigger (Confirmation):** Rather than buying immediately at oversold readings, wait for **momentum to turn back up** as confirmation:
6. **Williams %R crossover:** Wait for Williams %R to **rise back above -50** after being below -80. Crossing above -50 indicates the stock's price has moved from the lower half to the upper half of its recent range, confirming an upward momentum shift ¹² ¹³.
7. **CCI crossover:** Ideally, CCI should also **rise back above -100**, signaling that the extreme selling pressure is fading ⁵. This often coincides with CCI crossing above -100 or even the zero line, confirming the momentum swing upward.
8. **Signal:** A buy signal is generated once these confirmations occur. For example, **buy at the close** of the day Williams %R closes above -50 (provided price is still above the 50 EMA and CCI has likewise turned up). This dual confirmation ensures both oscillators agree on a momentum reversal ⁸.



Example of Williams %R confirming reversals in an uptrend. Green arrows show long entry signals where Williams %R was oversold (< -80) and then crossed above -50, confirming the upturn (red arrows show the opposite for shorts). In our strategy, CCI below -100 and then turning up would add further confidence to these long entries. ¹³

1. **Exit Strategy:** Hold the long position for roughly **3–4 weeks** or until an exit signal appears, whichever comes first. Several exit approaches can be used:
2. **Time/Target Exit:** Since the goal is to ride the momentum swing for a few weeks, you may choose to take profit after ~20 trading days or if a predetermined price target is hit (e.g. a return to a recent high or a certain percentage gain).

3. **Momentum Fade:** Exit if momentum flips bearish. For instance, if Williams %R reaches overbought (> -20) and then dips back below -50 from above, that can signal the upswing is ending ¹³. Similarly, if CCI rises above $+100$ then falls back below $+100$, momentum is waning ⁵ – this could be a cue to take profits.
4. **Trend Break:** If price closes **back below the 50-day EMA** (uptrend potentially ending) or violates a key support level (e.g. recent swing low), consider closing the trade to protect from a larger trend reversal.
5. **Stop-Loss:** Always manage risk with a stop – for example, a stop-loss just below the recent pullback low (for a long trade). This ensures a contained loss if the trade thesis fails.

Short Trade Setup (Sell/Short on Bounce in Downtrend)

1. **Trend Filter:** Identify stocks in a **downtrend** – e.g. **price below the 50-day EMA** (bearish bias). We only short stocks with a prevailing negative trend.
2. **Overbought Condition:** Within those downtrends, look for an **uptick bounce** (temporary rally against the trend):
3. **Williams %R** moves above -20 into overbought territory ².
4. **CCI** rises above $+100$, indicating the stock is overbought with unusually strong short-term upward momentum ¹¹. These conditions mean the stock has rallied within its downtrend and may soon resume falling.
5. **Entry Trigger (Confirmation):** Again, wait for **confirmation** of the turn downward:
6. **Williams %R crossover:** Wait for Williams %R to **fall back below -50** after being above -20 . A cross **down** through -50 confirms that the price momentum has swung back to the downside ¹³ (price moving from the upper half to lower half of its recent range).
7. **CCI crossover:** CCI dropping back **below $+100$** (or below 0) after an overbought spike confirms the bullish burst is fading ⁵.
8. **Signal:** Enter a short position once these occur (e.g. sell/short at the close of the day %R closes below -50 , with price still below the 50 EMA). This ensures the brief counter-trend rally is ending and the larger downtrend is reasserting itself, as signaled by both oscillators.
9. **Exit Strategy:** Similar to longs, hold the short for up to **3–4 weeks** or exit on a clear signal of trend exhaustion:
10. **Time/Target:** Take profit after a few weeks or if the stock reaches a key support or a percentage gain target.
11. **Momentum Flip:** If Williams %R becomes deeply oversold (< -80) then rises back above -50 , it suggests the down move is likely done (potentially a point to cover the short) ¹³. Likewise, if CCI goes below -100 then climbs back above -100 , the sell-off momentum is fading ⁵.
12. **Trend Break:** If price closes **above the 50-day EMA** (downtrend likely ending) or breaks a key resistance, consider exiting the short.
13. **Stop-Loss:** Use a protective stop (e.g. just above the recent swing high in the bounce) to cap risk in case the downtrend reversal is deeper than expected.

Additional Notes

- **No Volume/Price Constraints:** The strategy does not impose minimum volume or price filters (per your input of no constraints). However, it's wise to be mindful of liquidity; focusing on the more liquid NIFTY500 stocks can improve reliability of technical signals and trade execution.
- **Scanning and Automation:** You can scan the NIFTY500 each day for the above criteria. For example, a scanner could filter stocks by EMA relationship (above or below 50 EMA) and oscillator values (e.g. Williams %R < -80 and CCI < -100 for potential longs, or vice versa for shorts). **Pairing these indicators provides confirmation** — a practice which helps avoid false signals. As one strategy example notes, Williams %R can flag overbought/oversold conditions and **CCI can confirm them** ⁸, improving your odds by trading only when both indicators agree on an extreme.
- **Parameter Adjustments:** The suggested parameters (14-period %R, ~20-period CCI, 50-day EMA) are grounded in common swing trading practice and research. They balance responsiveness with noise reduction for a multi-week trade. ¹ ³ ⁶ You may fine-tune these based on testing – for instance, if you find signals too frequent, consider a slightly longer oscillator period (e.g. 20-day %R or 30-day CCI); if signals are too scarce, a shorter EMA (like 20-day) or oscillator lookback can increase sensitivity.

By using **Williams %R** and **CCI** together under the umbrella of a trend-defining **EMA**, this strategy aims to catch **momentum continuation** moves in the direction of the trend, entering at opportune moments when the crowd temporarily pushes the stock too far (either overselling in an uptrend or overbuying in a downtrend). This approach is rooted in well-known technical principles: trade in the direction of strength, **buy the dips in uptrends and sell the rips in downtrends**, and use multiple indicators to confirm each other's signals for higher probability entries ¹³ ⁵. Always remember to manage risk on each trade, and happy swing trading!

Sources:

- CandelaCharts (2025). *Understanding Williams %R in Trading* – Recommended periods and usage for different trading styles ¹⁴ ¹⁵.
- StockCharts ChartSchool. *Williams %R* – Default settings (14-day) and interpretation of overbought/oversold and mid-range (-50) crosses ² ¹².
- StockCharts ChartSchool. *Williams %R* – Example showing confirmation signals (Williams %R crossing above -50 after oversold for longs, below -50 after overbought for shorts) ¹³.
- B2Broker (2025). *What is CCI Indicator and How to Use It?* – Key levels (+100/-100) and common period settings for CCI; oversold/overbought signal logic ⁴ ⁵.
- B2Broker (2025). *What is CCI Indicator...* – Notes on choosing CCI period (shorter vs longer) and combining with other tools to reduce false signals ¹⁶ ³.
- DeepVue (2025). *Exponential Moving Average (EMA): How Traders Actually Use It* – Common EMA periods by trading style (50-day EMA often used by swing traders) ⁶.
- VectorVest (2023). *Best Moving Averages for Swing Trading* – Suggests 20-day or 50-day MA as effective for swing trading trend analysis ¹⁷.
- TakePropips (2025). *Williams %R CCI Reversal* – Strategy concept using Williams %R for overbought/oversold and CCI to confirm those conditions ⁸.

1 14 15 **Understanding Williams %R In Trading for BINANCE:BTCUSDT by CandelaCharts — TradingView**

<https://www.tradingview.com/chart/BTCUSDT/fNDZGSu8-Understanding-Williams-R-In-Trading/>

2 10 12 13 **Williams %R | ChartSchool | StockCharts.com**

<https://chartschool.stockcharts.com/table-of-contents/technical-indicators-and-overlays/technical-indicators/williams-r>

3 4 5 9 11 16 **What is CCI Indicator and How to Use It in Trading?**

<https://b2broker.com/news/what-is-cci-indicator-and-how-to-use-it/>

6 **Exponential Moving Average (EMA): How Traders Actually Use It | Deepvue**

<https://deepvue.com/indicators/exponential-moving-average/>

7 17 **What are the Best Moving Averages for Swing Traders? - VectorVest**

<https://www.vectorvest.com/blog/swing-trading/best-moving-averages-for-swing-trading/>

8 **Pro Trading Strategies – TakePropips**

https://takepropips.com/pages/pro-trading-strategies?srsId=AfmBOor3zqUg3Xjp63ihdUX_slAE9eaoPfCTg734oX--kCB0KCAX97Lr