

Options Strategies with Strict Conditions

1. Delta Long

Concept: Take a bullish directional position when the delta of a call option suggests strong sensitivity to price moves.

Strategy Logic: Enter the trade when the call option's delta exceeds 0.6 (indicating the option is deepening in-the-money), and exit when delta falls below 0.4 (suggesting weakening momentum).

Strict Condition:

```
if option.delta >= 0.6:
    BUY
if option.delta <= 0.4:
    SELL
```

2. Gamma Scalping

Concept: Exploit short-term price movement by scalping around a delta-neutral position when gamma is high.

Strategy Logic: Enter when gamma is elevated and the underlying asset is trading below its short-term moving average. Exit when gamma decreases or the price reverts back to the mean.

Strict Condition:

```
if option.gamma >= 0.05 and price < SMA_5:
    BUY
if option.gamma <= 0.01 or price >= SMA_5:
    SELL
```

3. Theta Short

Concept: Short options when time decay (theta) is severely negative — i.e., the option is rapidly losing value with time.

Strategy Logic: Enter a short when theta is below -0.05 (aggressive decay), and exit the trade (cover) when theta recovers above -0.02 .

Strict Condition:

```
if option.theta <= -0.05:
    SHORT
if option.theta >= -0.02:
    COVER
```

4. Vega Squeeze

Concept: Go long on options with high sensitivity to implied volatility (vega), especially when the underlying is trading at a relative low.

Strategy Logic: Buy options when vega is high (e.g., ≥ 0.1) and the underlying asset's price is below its 15-minute moving average, suggesting potential for a volatility pop.

Strict Condition:

```
if option.vega >= 0.1 and price <= SMA_15:
    BUY
if option.vega < 0.1 or price > SMA_15:
    EXIT
```

5. Straddle Buy

Concept: Capture large price moves in either direction by entering a straddle — buying both a call and a put at the same strike.

Strategy Logic: Enter the straddle when both gamma and vega are elevated (indicating high price sensitivity and volatility expectations).

Strict Condition:

```
if option.gamma >= 0.04 and option.vega >= 0.1:  
    BUY_STRADDLE
```

6. Short Gamma Reversal

Concept: Sell options that are overpriced but have low gamma (low responsiveness to price change).

Strategy Logic: Sell when the option price is unusually high (e.g., in the 98th percentile of recent prices) and gamma is low; cover the short if gamma spikes, as that indicates rising risk.

Strict Condition:

```
if option.price > 98th_percentile and option.gamma <= 0.01:  
    SHORT  
if option.gamma >= 0.03:  
    COVER
```

7. Momentum Vega

Concept: Ride upward trends in implied volatility and option prices — a momentum trade on vega and premium.

Strategy Logic: Buy when vega is elevated and increasing, and option price is also rising. Exit on reversal of either.

Strict Condition:

```
if option.vega >= 0.08 and vega_change > 0 and price_change > 0:  
    BUY  
if vega_change < 0 or price_change < 0:  
    SELL
```

8. Theta Fade

Concept: Fade extreme theta spikes when option is undervalued and price is at a trough.

Strategy Logic: Buy when theta is very negative (high decay pressure) and the price is near its rolling minimum over a recent window (e.g., past 10 bars).

Strict Condition:

```
if option.theta <= -0.07 and price <= rolling_min(SMA_5, window=10):  
    BUY
```