# Easy VLS Algorithms (Valk Last Slot) <br> Developed by Feliks Zemdegs and Mats Valk 

Images sourced from Conrad Rider's VisualCube - http://cube.crider.co.uk/visualcube.php

## Algorithm Presentation Format



Round brackets are used to segment algorithms to assist memorisation and group move triggers.

VLS is a very large algorithm set. This algorithm sheet presents a subset of VLS algorithms which are either easy to recognise, learn, or execute. This selection of 'easy' cases is based on subjective judgement and experience, and we're always happy to take suggestions about the inclusion/removal of certain cases.

This sheet provides a nice introduction to the full VLS algorithm set, and aims to highlight the most useful cases to know.

In this sheet we have not included cases which involve directly inserting the pair and then executing OLL.

## UF Edge Misoriented



U (F' U' F) U (R U2 R')

$M^{\prime}\left(U R U^{\prime} r\right)$

( $\mathrm{R}^{\prime}$ F R F')

(F2 r U r' F) ( $\mathrm{U}^{\prime} \mathrm{R} \operatorname{UR}$ R)

$y^{\prime}\left(r^{\prime} U^{\prime} R \mathrm{U}\right) \mathrm{M}^{\prime}$


U ( $R^{\prime} U^{\prime} R^{\prime}$ F) R2 F' ( $R^{\prime}$ UR)

$y^{\prime} U R^{\prime} F^{\prime}\left(L^{\prime} U^{\prime} L\right) F R$


U F' (L' U2 L) U F


U (F' U F U) (R U2 R')

( $\left.F^{\prime} \mathrm{U} 2^{\prime} \mathrm{F}\right) \mathrm{U}\left(\mathrm{R} \cup \mathrm{R}^{\prime}\right)$


U2' (R' F R F') (R U2' R')


## UL Edge Misoriented



U2 R U2' y (R U R' U') F'

( $R^{\prime} U^{\prime}$ F R F') U' ( $\mathrm{R}^{\prime} \mathrm{U} 2 \mathrm{R}$ )

( $\left.R^{\prime} U^{\prime} F R F F^{\prime}\right)\left(R^{\prime} U R\right)$

(URU') X' U L' U L U2 I'


U R B' (U' R' U) (I U I')


U F' (L' U' L) F

(UR U) (R2' F R F') (R U2' R')

$y^{\prime} U\left(R D r^{\prime}\right) U^{\prime}\left(r D^{\prime} R^{\prime}\right)$


U2 (r U R' U') M (U R U R')


M (U R U' R') U' M'

(U2 R U') y (R U' R' F')

(UR U') y (R U R' U') F'


U R y (R U'R' U) (R U' R' F')

## UB \& UF Edges Misoriented



U2 (R U' R' U') (R' F R F')


R' F (R2 U R' U') F'


U (RIU'R' U) x U'R'

U R' (F' U' F U) (R2 U2' R')
(FU F (R2 U2 R)




U2 (R U' $\left.\mathbf{R}^{\prime} \mathrm{U}\right)\left(\mathrm{R} \mathrm{U}^{\prime} \mathrm{R}^{\prime} \mathrm{U}^{\prime}\right)$ ( $R^{\prime}$ F R F')


M' U2 (R U' R' U) (R U2' r')

All Edges Misoriented

$y^{\prime}\left(r^{\prime} \mathrm{U}^{\prime} \mathrm{r}\right) \mathrm{U} 2$ ( $\left.\mathrm{M} \mathrm{U}^{\prime} \mathrm{M}^{\prime}\right)$


U2' (R' F R F') U2' (R' F R F') U2 (F' U2' F) R U' (R2' F R F')


U2 (F' L' U2 L F) (R U2 R')
(R'FRF) U2 (R1 R

