

# Retract While Combing plugin for Cura

## License

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## Source

See <http://github.com/Dim3nsioneer/Cura-Plugins/wiki/Retract-While-Combing-plugin>

## Author

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### The RetractWhileCombing plugin works with these GCODE flavors:

- RepRap GCODE (all versions),  
*e.g. used by Ultimaker Original (UMO) and Original+ (UMO+)*
- RepRap volumetric (V14.07+)
- UltiGCode (all versions),  
*e.g. used by Ultimaker<sup>2</sup> family (UM<sup>2</sup>)*

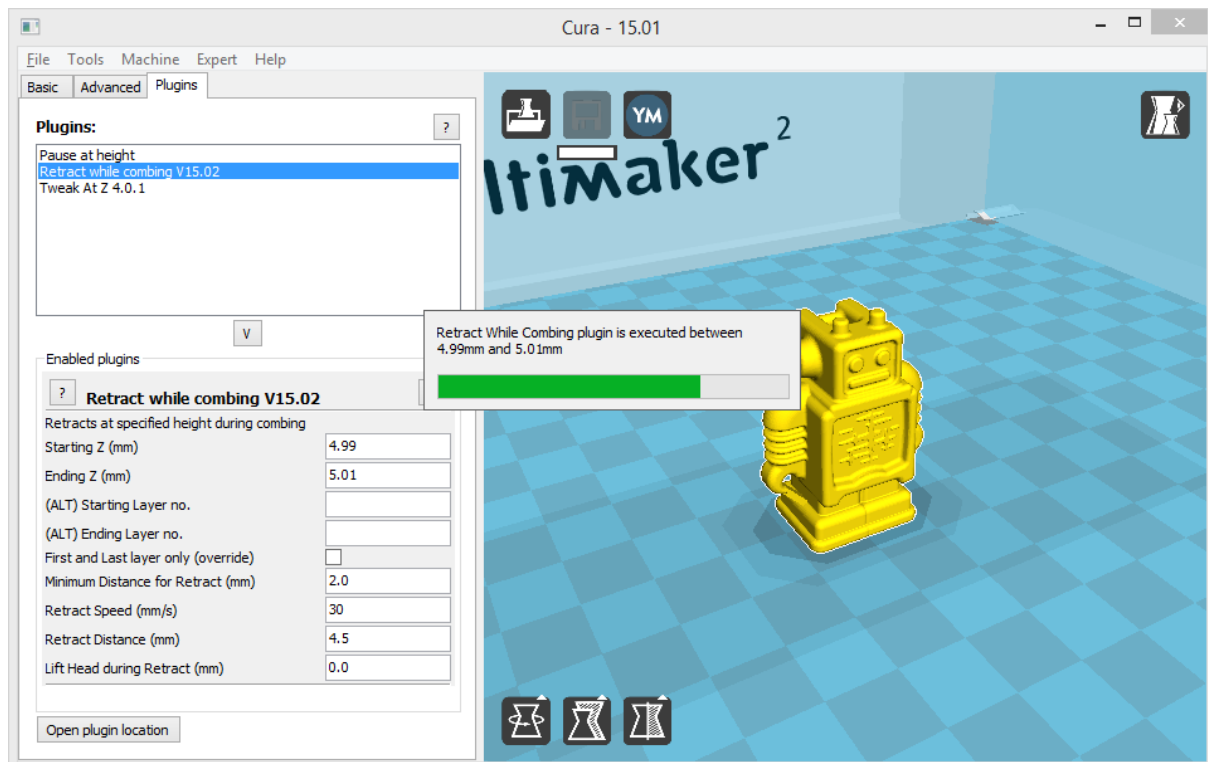
## Installation (for Cura)

1. Close Cura if opened
2. Copy 'RetractWhileCombing.py' to the plugin folder of the Cura installation  
*e.g on Windows: C:\Program Files (x86)\Cura\_15.01\plugins*
3. Start Cura

## Description

General purpose: Forces the printer to retract during combing moves.





Screenshot of RetractWhileCombing 15.02

## Version restrictions

The status bar feature only works on Cura versions from 14.12.

## Input description (V15.02)

<b>Starting Z (mm)</b>	Specifies in millimeters at which height retraction is enabled for combing moves
<b>Ending Z (mm)</b>	Specifies in millimeters at which height retraction is disabled again for combing moves
<b>(ALT) Starting Layer no.</b>	Alternatively, the starting layer can be specified by its number; if it is specified the starting Z from the previous input will be ignored
<b>(ALT) Ending Layer no.</b>	Alternatively, the ending layer can be specified by its number; if it is specified the ending Z from the previous input will be ignored
<b>First and Last layer only (override)</b>	If enabled, it overrides previous Z or layer no. settings and enables retraction on the first and on the last layer of the object but not for the layers in between them
<b>Minimum Distance for Retract (mm)</b>	Distance below which no retraction will be performed for combing moves



<b>Retract Speed (mm/s)</b>	Velocity of the retraction move; applies only to RepRap flavor; for flavor using G10/G11 commands for retraction no changes are made
<b>Retract Distance (mm)</b>	Retraction length; applies only to RepRap flavor; for flavor using G10/G11 commands for retraction no changes are made
<b>Lift Head during Retract (mm)</b>	Corresponds to the z-hop feature of Cura but applies only to combing moves altered by the plugin

## Remarks / additional features

Z hops of about twice the layer height allow to get rid of remaining combing lines. Setting the travel speed as high as possible is recommended.

## Feature List by version

Feature	Version					
	14.01	14.07	15.02			
Selection by Z	UMO UM <sup>2</sup>	UMO UM <sup>2</sup>	UMO UM <sup>2</sup>			
Selection by layer no.	UMO UM <sup>2</sup>	UMO UM <sup>2</sup>	UMO UM <sup>2</sup>			
Minimum distance for retract	UMO UM <sup>2</sup>	UMO UM <sup>2</sup>	UMO UM <sup>2</sup>			
Lift head during combing move	UMO UM <sup>2</sup>	UMO UM <sup>2</sup>	UMO UM <sup>2</sup>			
Support for RepRap volumetric flavor		UMO	UMO			
First and last layer selection			UMO UM <sup>2</sup>			
Progress bar works with			Cura 14.12+			

*UMO: supported with RepRap flavor; UM<sup>2</sup>: supported with UltiGCode; () = deactivated*

Please report bugs and issue feature requests to:  
[www.github.com/Dim3nsioneer/Cura-Plugins/issues](https://www.github.com/Dim3nsioneer/Cura-Plugins/issues)

