Step 1: Add recognition marks to your drawing

For Wolfcut Mark Reader to be able to recognize and align a cutting job you need to add three recognition marks to your drawing before you print it, as shown in figure 1a. The marks should be square, black, and approximately 6mm in size (6mm tall and 6mm wide).

The exact position of the Marks on the drawing is not important, you can place them anywhere, but for best accuracy in the cut they should be as far apart as possible. The preferred position of the Marks is as shown in the illustration below.



Recognition marks on the printed drawing, these marks will be visible to the camera.

Step 2: Add extra "cuts" to the G-code where the recognition marks are.

The markers won't actually be cut when you use Wolfcut Mark reader, but they must be added to the G-code file that you prepare for Eding CNC.

eg. The four cuts for the job shown in step 1 would look like this:



The cuts for the job plus three extra cuts for the recognition marks (red lines)

When you have all the cuts for the job in the vector file, use your usual mechanization software to convert the vectors to G-Code for Eding CNC (in ".cnc" file format).

Example G-code for the job above.

Here we see an example of G-Code with the extra cuts.

Note: The position of the extra cuts inside the file isn't important (they can be at the start or at the end) but there MUST be a movement in Z to mark the beginning and end of each cut (see the comments in the example code).

```
;0x00000000;
;
; The G-Code for our example file
;
; Use tool 1, feed rate 1000 (for example)
M6 T1 F1000
; The Markers will be removed by Wolfcut Mark reader during processing
; Marker 1 - A 6mm square at 0,0
G0 X0 Y0 (Go to position of marker)
G1 Z-5 (This downward movement in Z indicates the start of the cut)
```

G1 X6 Y0 G1 X6 Y6 G1 X0 Y6 G1 X0 Y0 G0 Z0 (This upward movement in Z indicates the end of the cut) ; Marker 2 - A 6mm square at 140,0 G0 X140 Y0 G1 Z-5 (Start of cut) G1 X146 Y0 G1 X146 Y6 G1 X140 Y6 G1 X140 Y0 G0 Z0 (End of cut) ; Marker 3 - A 6mm square at 140,140 G0 X140 Y140 G1 Z-5 (Start of cut) G1 X146 Y140 G1 X146 Y146 G1 X140 Y146 G1 X140 Y140 G0 Z0 (End of cut) ; Now the real job ... cut a 100mm square at 20,20 with 5mm depth G0 X20 Y20 G1 Z-5 G1 X120 Y20 G1 X120 Y120 G1 X20 Y120 G1 X20 Y20 G1 Z0 ; Move to a safe height G0 Z-20 ;Stop the machine M30 ; End-Of-File marker %

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