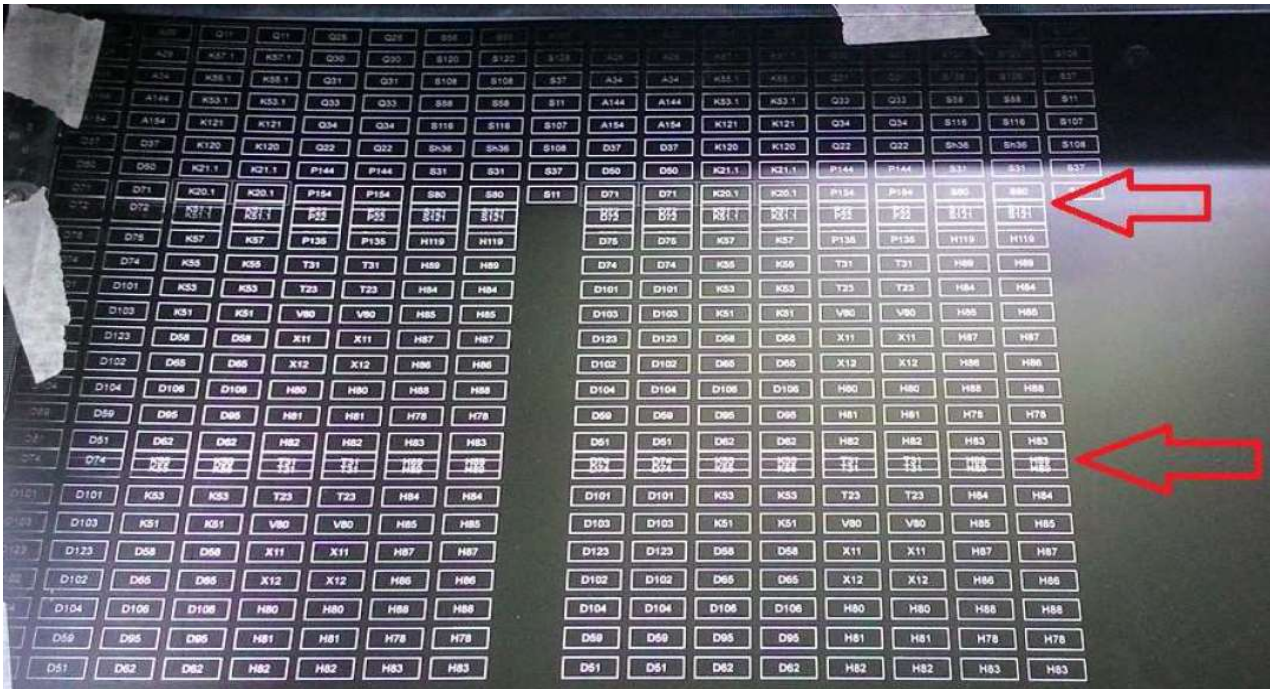


7.5 Diagnostic process for random shifting problem

Symptom 1: Y axis shifting during a matrix job

When the machine is engraving or cutting a matrix job (some rows and columns of logos or texts), sometimes one row of job is shifting to y axis (shift to upper or lower than normal position). This symptom does not happen every time. Sometimes this symptom will happen once in two or three days. See below image for symptom example:

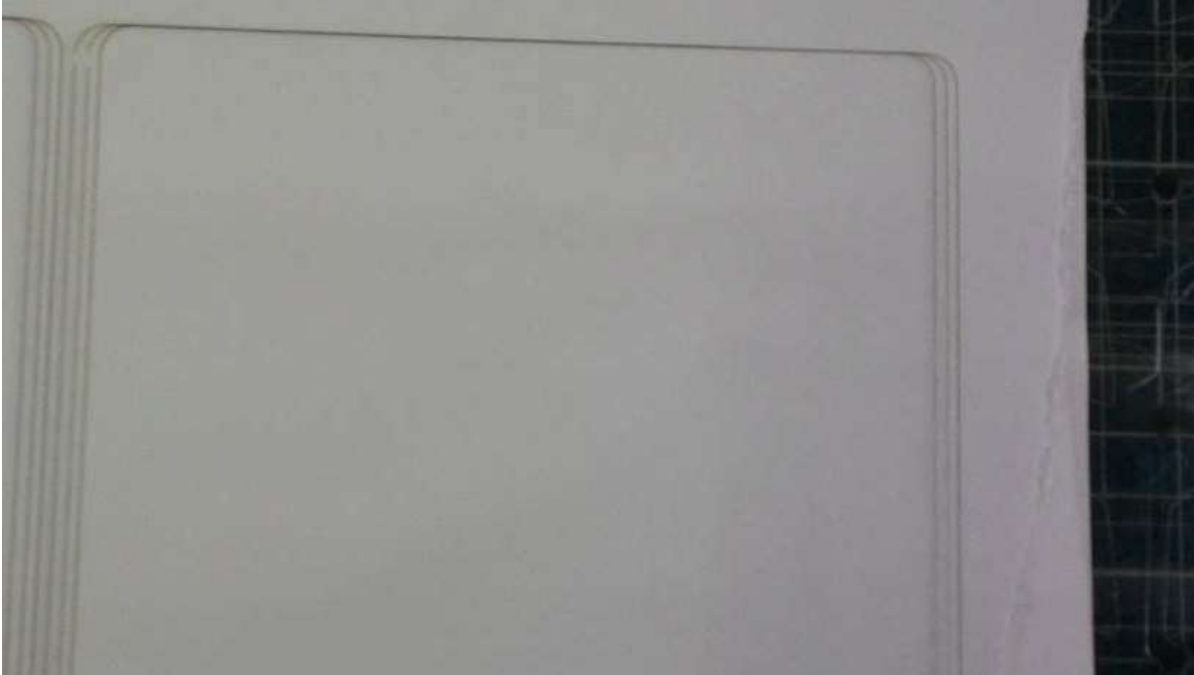


Diagnostic process:

1. Check grounding for machine and office grounding and see if the grounding is OK.
2. Check if the control panel has some error message when the shifting happens.
3. If above two items are checked and this symptom happen randomly, it should be firmware bug, please download the latest firmware or contact to GCC for further help.

Symptom 2: X axis shifting during repeat jobs

When the machine is cutting a job, sometimes when repeat the same job on same position, the job will shifting to right side or left side gradually. This symptom does not happen every time. Sometimes this symptom will happen once in two or three days. The major reason for this symptom is the x motor flat cable has broken somewhere(only broken very small) and touch the metal part of machine and cause the signal from mainboard to x motor pcb is not correct. See below image for symptom example:

**Diagnostic process:**

1. Check if the x motor flat cable is broken somewhere or change another x motor flat cable.
2. Check if the screws under x motor cable are too sharp or too high and rub the x motor flat cable.
3. Check if the x motor flat cable is smooth or not too tight inside of y axis tube chain.