ZONESTAR

How to correct the origin position

Ver: 1.0

Foreword

1. **When you need to adjust the *X(Y/Z) min pos* or *X(Y/Z) HOME offset*?**

a. When you move the nozzle to (X,Y) to (0,0), but the actual position is not at the edge of hot bed (Mostly machine is on the LEFT/FRONT corner, Z9 is on the RIGHT/BACK corner), you may need to adjust HOME offset.

b. Error X(YZ) origin setting will cause the actual printable size become smaller, even when the object being printed is near the edge of the hot bed, it can cause printing to fail.

2. What is *X(YZ) min pos* and What is *HOME X(YZ) offset*.

a. ***X(YZ) min pos*** means when the printer is HOME, the distance from the nozzle to the edge of the hot bed, it is usually negative, because the nozzle is outside the hot bed when HOME.

b. ***HOME X(YZ) offset*** means when the nozzle position is X=0,Y=0,Z=0, the distance from the nozzle to the edge of the hot bed.

c. You can correct the origin position offset by adjusting ***X(YZ) min pos*** or ***HOME X(YZ) offset***. The difference between them is that ***X(YZ) min pos*** is a distacne from HOME position, but ***HOME X(YZ) offset*** is a distance from ZERO position. Because the newest version Repetier-host can't modify the ***X(YZ) min pos*** in Firmware EEPROM setting, so we modify the firmware to replace of ***X(YZ) min pos*** by ***HOME X(YZ) offset***, in fact, it is more reasonable and easy to understand.

d. Please note that if the nozzle is above the hot bed after HOME, you should try to adjust the height of the Z-axis limit switch or the length of the Z-axis height adjustment screw or the height of the hot bed so that the HOME Z rear nozzle is no higher than the hot bed.

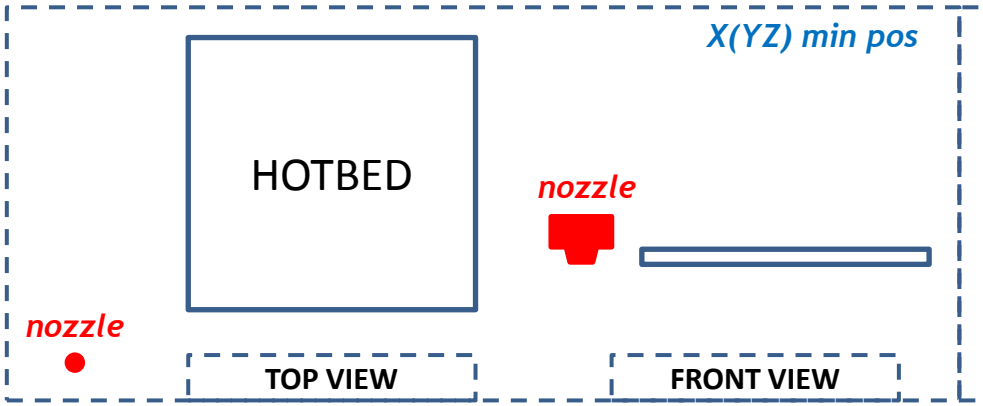


Fig 1: NOZZLE POSTION WHEN HOME

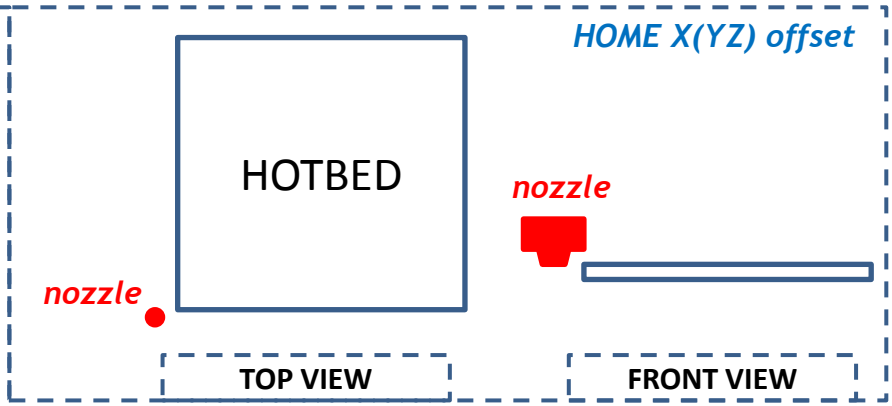


Fig 2: NOZZLE POSITION WHEN X/Y/Z is (0,0,0)

Adjust the HOME X(Y/Z) offset on LCD MENU

Step 1: Check current settings of offsets. **MENU>>*Control*>>*Motion*>> HOME_X(Y/Z)_offset: xx.xx (fig1)**
Step 1: Auto Home. **MENU>>*Prepare*>>*Auto Home*, Waiting for completion**
Step 3: Move the nozzle to the start conner of hotbed.
a. ***MENU>>Prepare>>Move axis>>Move Z>> Move 0.1 mm >>*** Enter and move the nozzle to the properly position
b. ***MENU>>Prepare>>Move axis>>Move X >> Move 1 mm >>*** Enter and move the nozzle to the properly position
c. ***MENU>>Prepare>>Move axis>>Move Y>> Move 1 mm >>*** Enter and move the nozzle to the properly position
Step 4: Calculate and save the offset. **MENU>>*Prepare*>>*Set home offsets* (fig 2/3)**
Step 5: View the new settings of offsets. **MENU>>*Control*>>*Motion*>> HOME_X(Y/Z)_offset: xx.xx (fig1)**

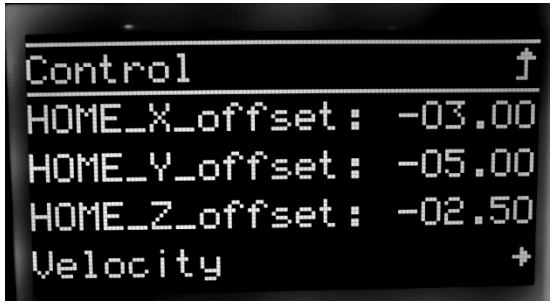


Fig 1: SETTING of OFFSETS

Fig 2: SETTING of OFFSETS

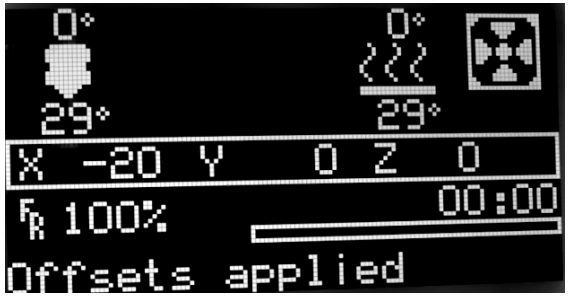


Fig 3: SETTING of OFFSETS

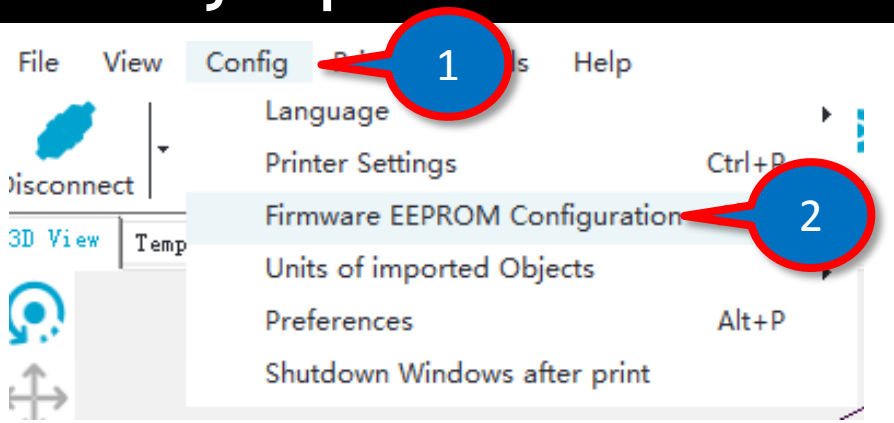
If you want to get a more accurate offsets:
Step 1: Modify these setttings. **MENU>>*Control*>>*Motion*>> HOME_X(Y/Z)_offset: xx.xx**
Step 2: Store to the control board. ***MENU>>Control>>Store settings***

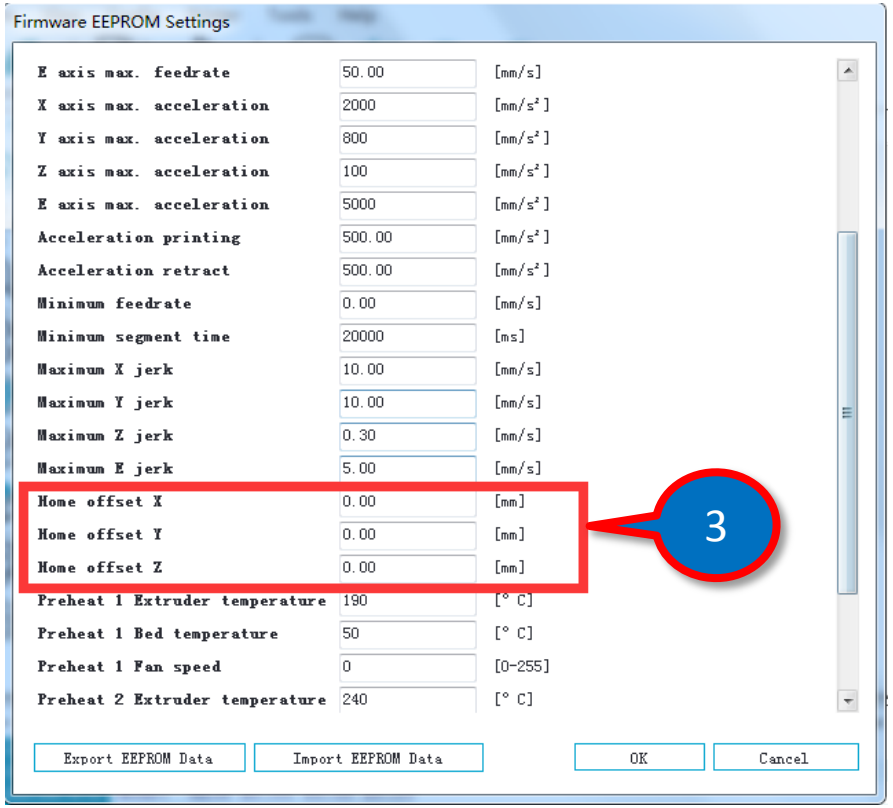
NOTE:
1. If you want to shift the origin position to the right, reduce HOME_X_offset.
2. If you want to shift the origin position to the front, reduce HOME_Y_offset.
3. If you want to shift the origin position to the higher, reduce HOME_Z_offset.

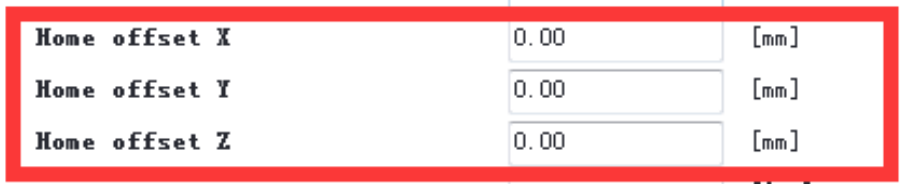
Adjust the HOME X(Y/Z) offset by repetier-host

You can also to modify these parameters by repetier-host,
Step 1: Connect printer to Repetier-host
Step 2: Config>>Firmware EEPROM
Step 3: Find the HOME offset X(Y/Z) and modify it.

About how to modify the EEPROM parameter, please refer to the video tutorial below:
https://www.youtube.com/watch?v=wlPBuXiS6-4







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