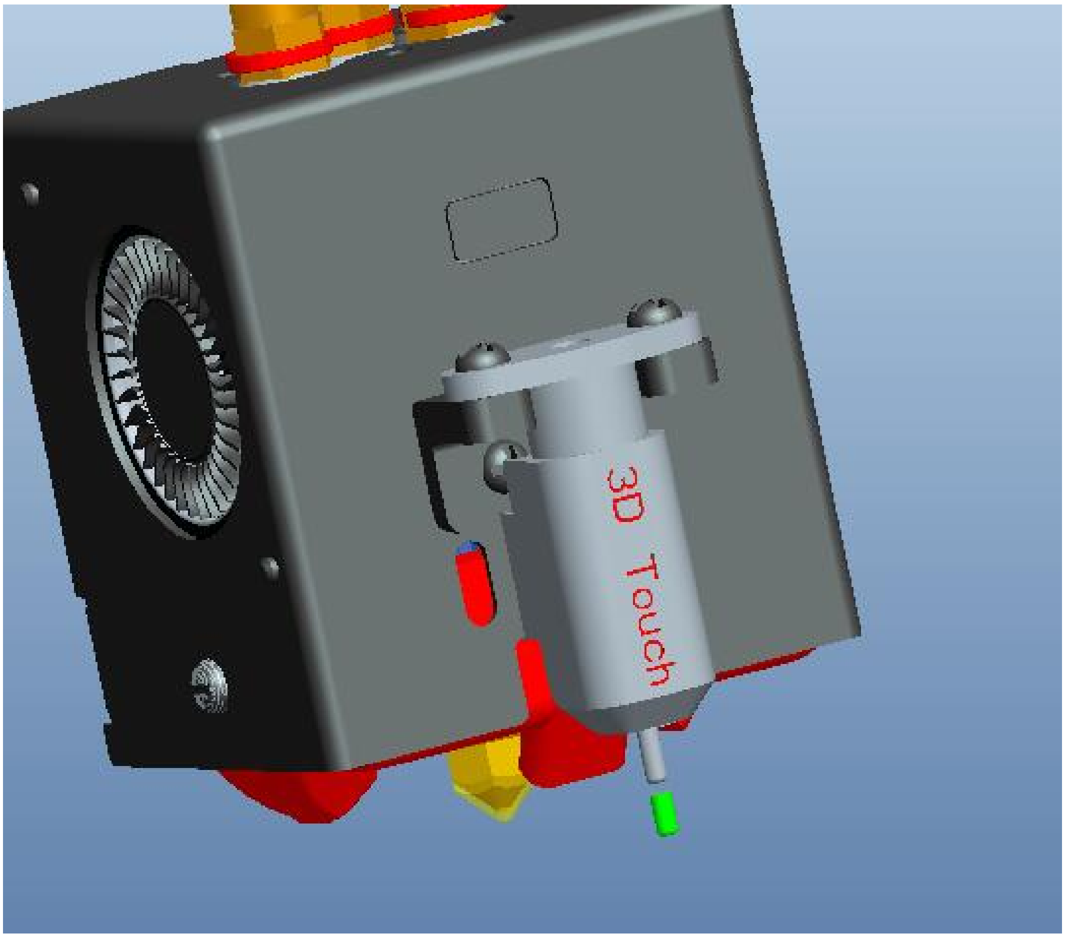
Choose Language (Translated by google)

How to install, wiring and debug the 3d touch

Install the Bltouch to the print head of the 3d printer

Install the Bltouch module on the hotend housing, we make a print stl file, please print it and then install the Bltouch on the hotend.



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A�MɩXE�M̧�Yu���H�A�����>ɳ{�� ���0�h7-a���������U��W
��Z� ���-�
�<����b������}cd%�MsE@�_tN��[wnؿrM\�N��#�_��w��6|�a
�>��ऺ̤F���Rhk�
�r�"4�H�²��x�$p���d0������3l��#���J�;�G�EY���?
w�4�9�ꜵC�z�."b��F=#�a)n6����RɄmx�R��E�X��SK'6
��$���\֍����2� �4� �50ⅆfN�V�'2a5~ 
�L���u^9&+�d�f�W�����~�� s�w� �J|P��dEID��\
����dj�̚��'�U�������-;�)������5b�T����L��� 0�Y*��S+
����N��X'�{���t��5N�7��<Q�/���� �.�[v���� W�
Zvv϶XC)0NHxz\ɳ#����%D�k����L�;��Q6�/�>�������g�,�
��� L�a��N��#��v(;��C&������o�� 6/b�~;��%�}���\�
n�Y:�]��r��3h����;���
N���o�xH����Np�d��3��I��uL�>��v'<��L�=�b�-ҧ?����-
Z��7o�^�[v����Yx�Ɑ�Yx���YxK�3����@u����{���������}d��,��qn�,�
%#0�f�- �y�BU����%+�7
�a>p��̬�D.�ZQ��f�UIl,�����w����,����{��֍R17
�����b�m�&@���;�g�K,��I�-
���Xx��������aS:+tl��X�D}Y������TS�Z��^X��'+��0V�
�on����M���z���0V���ۀ��f�&��Unn�E^p��զ,�z����(V��)��/z�
�*��'+��?�мx3p�U�#nnnHw3pzUU5V?ঌ >Y|
����z���0V�3k��R������ɳ��z��<طۛ^nnJf&+0 3d-
��a:]�}�'ka��L����_ഢ�
�q��Wx�j�x6���������0o;dh4� 0{�ؠo�z�\��y�c'�a���-
i��=>�a�V���y;��o��Sq�\������������0R�� ۊ�ێ�����v�����K�=���uX��
�C�v�����v�����~h]�A� تجه��������i̩"���)e�kq�b�3����i��
5F8?yf*nQFd���î�9�fw3~W?
�m7���K����K������J��j������K#�)�[#����WU��Q������wq�0D�#
V�y.:�U���������"0������w�6o>��3�����+e�t�;� ஓM��7|
���GHF���k�G��ڀ����ab[>p��?����f�����������������[W��
�(�' ��=�u�]�8�1Y���������W�p1��X���1��̬��0?��a�!
�\���M������'�篚��{�����U�a�s��1�^�h������p�7��3\�M
��˚ڈpp:��"!WMU[��x�YWd�Irs�;�����������|
��!.H�#�^�0�.q�K���C{�{U Hᬱ��Jo.q�(�o.qX��A13i��?
��|̧����<?q�T�6�������ൟO�?·];0m��������
��AP]ɜ�_��_�p�C&�8�Jk[�������X9:���� U#OEv����\�������Ao{�n�
W�Òj9□□�:□���□U���F□ŭb�Fǩ�□□���W1Ac��ĖM�□�4□f□4�(   �l���z��□�c□@
��□4□��NGP���Ax��□�?�{□��t��O�□□�-X����v��□g�Gr□□��q□�'�□□X0V
��V���~������"{/����������□��>�K�H�!
�����;����u'�N��B��f�□\��q�T>�80□� Z�□�NA꙰=���□:
<�□�□8�\L��□�{�!�□□��M��薤�□o��gR&□�U�□��T�7�-
�u6��D���t���□yK�□T□h!
���:�B@□b�J0□�#4���f'�□�□�y□V□;;�□j�}}□j□��l��l0Q�v���t��
��O□E□�D;^W���plq□�!�h����#�,��l�����
��D<□4'0□�i□kJ<99��□wy��□q;;�>��□���G�c��□□rv□�����$>�□□�1�N]□
��□<���Tc��Q�u□����□V□������□���'�/�����B���c��□□□}
�Id�8�A�l����□�U�)_8�I□��5□�Ryyr□�;�Y�M��□ P;vj<�9x□3□□�
�8�@���V□���Yl���P�□���□□>~�IR□��4□�□���$□�ō□iX���[��□���□e□���
□W�#]�□ ��□��wp%S����� ��~kmq��□�T}
���§���a)�□=.�*�~2��Ⱥ*���□WU��□qg�.1KuK\d)OKuK�k)mKuK\s)�□�Ħ�/�-
j���0\���4a□�U��□��□[�E�1E□��÷�a□cZ(���U�c□□�U�*|@£□V꩜&□X��
���a□c��□��J୨hي��9���]�Y□w��C�□7m□�|�$�MdU□(���!
��Ao�@*□��T;�Ė7W읎?/0�K����^□�����W�?�□□�S�{�|
�□:a<�N�□�Þ□���□j�j�□N�_�x□T�wp□Ien��□��W�w�4□□
��Z�Łv�□��G�x��□�)������□□����V��?
R���+����P�R□]�������P�kB□�P∫□�U�□�□X�[)/���C)□��/
��□�k��3����□�}
�R□��□Jy�□R��l7Jy□�~�R^A□U�Î]��□y��R^C]H���□�g��□�"�R□���>�□��
�;�Jyg��Q‘�L□�□����b���Uʋ�m0Jy□iòR□���JyJb�(�eD�□�<□}
�P��□�p��$�□�ɑ�WQ4�(�5Ye��u��□�����R^u�T□�<@=��Λ□�□�B9YV��U
�l�U��U!����dM�N��<�□ɫ�l��□Gq���2□���w�Zx��^�C□
���l~h�IGv~h�����□-<��□+w9q�q�\�□-
����u./Zx�□�n�&�����q�ou���]Y�S□�����!w�'�hZ�□��^�□J□
�,�x���W���wC□j���!��V䨻
�q��9□�3{��{h�%��5Zx�w���+����«H��OXB�c□��□�����k□��j�a□����
�F�□^□ d���□��□Zx^B��□^p�F□/□���□�<Z-<�53Zx�O�h�e�q3ZxP�{h�□���□-
<�D{h�U$�5Zx□�□��ıı�c��d����□�6q̱�� �~�Zx□
e�□�ȼ���□��□�□iI□�C□□F���□����̄���D□��Ǹ□�n�}��?�£��c�?
�_[□�□�0�H�%��=��2z�F /c����R�!�W�w�□^□��C O� ^Rx�□?��l□Rx□��F
OJ□�J�□'�1+�7" @w□)<□�{H�l�<��□�□□^@l���□�□f��hQ□Rx□��□^��5Rx
9□��#;��^□�□����□����□�'��□& o��□�C
□�v#�ıı��J�f�����w�U��f�)l�RxJ(��+
�zK�U����□^C□����□}U�□�□^��r��"��□�++�'��C □�s��□�~□Rx
□j��D□�<�� �{H�A��!��d����$□zH�A\f���C�����Hqi��□Rk□)<9��C O��!
���%�J�)α[ � ���«�"e��Z��E �#9�-�□□A�D □�&□Rx□�o�□□4□<��b�sC��D H
效��b□□�A��C �"����k□�4Rx]β�□�S5□□��{�□□�d�□�□□rq�d□h��9"�□�(g�□)
<□□��N��D H�l��□}s�cE Ol�□)�����{��k̅□�H�yl-
0Rx□YG□�□�3RxJ��H�)���□����2���G�;�p�!�T���|□�(�%�mv
���)G�,jq�s□�觽□̦�□~E□^��)L�8�-v�O�3?��□悌
□H���]:�0�ű�5I�U>�q"v'�1�%vw� ���bwJń'�����1��`�
□Y+9���JqEO#��\P����CK̬26��h��5�kRNfǘ��□8�H�g]X�cY�(�fQK�w�b�1bwZ�Ē
� S�C�."ň�A��!v'�□e?�□
��uZ□:���e���!Y����@�È�y�60bw□A�F�.���K�N�□□�;�X{��eD□□�;�u□��
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�:F��D��bwB�����]��������C\���H�o��������������nF�.I��!v�B[����"�ꗫ�]E|@
7bw2c�bwMr���������������]�&�yf����T~�.�_È����_È:�K����x�������� �bwRA�y%bw��}
��5�Y�W$2����H�j~��z���K�NP���������aF�.V�o��]BqN#v���ꗫD��������rj<�
�UU�X�u��]p.����^�L����;�/���0�������]A�T#v'������������ʒ�]��5bw
��F����j���Vk����&�[��r_g|w.
(b�+=��H�bw�yJ��B����d����n���@���!v'T��!v��������8*#v��KF�.������;Ži��b
o3bw�.���;�}=���M�!v'�����x_����u�v3bw 8����]�樢
U�����]������{����q���������������;�2�_���_���?녕O���u���Ư������_���?
�������u�����/����u�e��i���u'��������
���j���j�i���Zw��n���E�}i�Q����������?:����ė&��x\Zw�u�'ZwŢ���gl
p���s���W���a]��Ħ ���i���-
�������@��ا�L������O�����pL������������������������������������<���������������}
��c�,�����>X��)�.m� �1���7ym����{���������%������y���&fX�Ů�����H_�A����� �%cu톱
��������&�������E_N��m����q�������ʜy������6HU���JmY���DD����bǫL��p?
Ou������A���]�em�����w������~��8Fh��#kfk�������������F��Ty��S���eM��^Lʟ ��|
������B��������b���;gj&'kU�El-�LŐ��ڊ�Y����5c���w%�U���CdX���gm�-�}
��a0<�E�P���b����hZGCm�3:����Ꭸʷ:�0���/������~����������+#�����:�h5��
� I)B��_��1 I����5�&VV�������������%$����k�;�
�d��S������X"�������@hH����+�n)����=�
�n[���/\K,���������ꓛK�<¾vi������&%�����Pl�<1�7Y�[1����cH#�{��P����@1�, �-
^��������wFxX���������������]:"9H���Nt�S����q��>/��O)H-
u����ض�sʂu���?:�����6������"���S#oM,��j�ৢ ���L��������E����$U�+躍
��;cZ)��]n&Č���������l��������8Zmi���������<�����V!
���vɠ0���4����L���j����)mZ~��O������c���èl�YH�S�����E>�p;�#�����$�cmbx�����
�������.Ґ�7(��������pę�=����>��j/�kX���W�p-
s���1k�jt�Ѵ����~���������_�=2�є���r������~�2����O���E%
{���5���a���sP�R������JF���گ��y'���X����e��������������D�ѣHh���6�������U�������
w! F�X������9wE�����������n�����k�������������� ��U��� {y��f���5TAy�}
���mex���5�Q��c�T���(��������#�A�����çEdyl'd���!J������d[�Pb'�C���659
)9sm����a������ ���4;������>�;Qg�xe�ů v����be+���O=8�Rr�9YH�1Y�b��ٙ����gNb
�.��1ᄀv�����k���*�����ꗫJ��k1����]��4�����������L;Iy�9'S,��x^�I���57�����}
��_�t��*��n����z�����c�3E��E���t���V�T'���Y��\��?ݒ��{���
��J0>����1���1������9�%B��k���n0m�������?��� FF�
ҭM+�<���������σ��κsR���s���:��������a�����W�~��n��f%��]�B��ݐd�K�]_�U6:�Q�������*�f0�
�<����4@����LFX�2�F���e���G�[J���������UOtH���3�u����@��������yMW�_w[X��
�����ɤ����$����.]j�&��3�|�������!c�vP���k�+tC��z��?
S�����ٵ��X�>�����i�t���7���Ͷ=�T=(�����Lhe����F�Xi �
7�����"�u���A�H�P�A[AN�ҍ+�-J.q����J7Y���P&����9�9���m8���� ���'�p��,S�
�l�%�����k�c����#N���<~�0̥�h������g���a�p����������Z���Ä2<��%�����Jy1�4X"�
�'%���7������<(Kf�x �Z����23<��7 �����������x����ʒ�������OG���f�I���-
�������������������G�q7�O@������������b�Ae"���#�-u!
�<0����������S�����!f�x:���a����������1���������\k�x�Ψ<������S�����x�[�0��
��& �Z9�X���=����L d���%'}�yı#�
���������*k����������pg���1��������������i'5�_<���c�x�����N������������N'�ű#o�,�N
;Qo����}�H���7# ���������'���_[����2}�M������������D��0w?
m���G����������������=J�nG2�k���7��M������xr�'����J��������,����ɹYt����X����
i<Xt�4eYt�ä�e����aXt� 0�,:�c���� ����Dd��,:���3,:�/�f�²�{��
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������6�&�����9�
�s�SB���9&��>�G�H&�"f���R�I����'2�UA�.w-
���6&�����Y\�ST��u�,�+�)Y-,�,��tqD�I�7�b��8O�i�dAs�u�DC�iU��;
��3'E5 ��v����(Ă7br$j��p���L�D-��3�y3)�l���sh��d|
���Tn3�unkw~��0�m�j�U��&"�D���!�����Y��N���
����~��o�B�4�����+ 41-�d���Q�B�U��C�I�f�B��/S_�
��r2��f�s�&5������x���d��$�y��
n��o����@)W��y¤C�V��Q8"@�C{�i)Oh8�8��t����7|s�,;�aEd�<�
m^"%©y�bNJxSxUf{GEv<7+?(flW:
<U�M�nRG��p��E����G�O�~�����+�_I����.�n����yQ���hL�O�K$/r+
��#�"���î�DȒ)JxK^��S��( ��!/
��'y����<î����E^��I��H���y�D>q���U��y�5$M��ER�|
��uIR=î:6�Z�"���A^$��,y��&hK^���C^���:El���EH�cî�_�EH"dqTJ�&/
��:!i�!/�H�dî��&�k���4+��I��A^��\�"/|IK^� =K^$O�"/
���IC��r�5{X�IB�L+T��fg�?/O-'��"Q&�uy=B�JNĞ��m�Bp>?>'��yщ� 褑�#
[���B�����$V��,yQ;�B'�H�����!/B���9s����DcS�nY�xLĺ��Rm��c��b
��3�T0%�Pu��� �"5��=���0c���'B���In�AO�郎�a4l鈅A���u���鉀� ���
䏞�c>�'��,=�"z"��H/z"d�7�D =qCO��i�xл�� -��'���=b-=�j��
銕0����p7=�j��� ����HIL��D0�/z"���'����E��-=�������3p��(#-
��'BZ$COT�)+��<��%Q6��4����h�����==�~���Hp|z�"'�����zCOT�6
�������z����-=� ���D艤�l鋏CjPKO$� 怓H
LOz"��>��L��'�2���H�d_�Da��H��z��1KO�42��(+���%cFP��'���'BZ
COT������!]��'jX>��DH�i�:z���r
7�=�X���z�&�~wY��Hr��AO��,=R�Zz",{CO$2��(;�7��'��,=Q0�=Dm/z"D
�[z"Y�/z"��^�D��>�
�z�5Dpz"������d����'�3Xz"��^�D��_�D���D�_��'�Hg�J�=�����B��9
�����)�qCO��qKO�p&KO��kz"�Q��,�D"'c$�D��>色�s��e鉗
��@OTNZz�+�����+�'jNб=0?觪�f/z�n�
�'B$��'*v�z"���7=��0�}R�j�����5;��'� ��~�u{.=Q�pz"�X��:X-
=B,=6DH6usOb�shq^J�s&!7R}SF=B-
��^�c&l��COt*�EO��KOtVY~�I>�T_bI9��H@V�Yz�,��>+o��
Uv�IO����.��d�QjH��}��;FVX��8_��LVy���
�W�)�A����������% �pgK@�:h��HΔ� �.������" �:㞞H�3DP�
�2=����-=�����" ��뤌H:_Dọ�I� ᴱ0&��h�)A���H��/
��X�K@$U����6_D�^DH|�o����G���""��5�} jz
�����sP���F��@@T�y! � ��! J�Ek�2н"�o���$�" j0'-
��^DR�~eX)���c������,?�����A@��㞞�y-���X"9^DB�
jH|d�:J:�Dۇ���% BBK@$����O���:������x�% j�F�����Z"���DH1�"
BB�C@��b �do���kX� '�! �Hle ����
��t���~[^DzDY! ��Lz�! j����DR{����"
�����A�jV0�5)� �n�@�><�P�����������c��?��h���
�����(����������ۦH���|��D��+�D�D8 ��D��% ����/���/
w̃e�6=��� ]� �Hˌ�q�$�����P g7>w�g��]B��gZ/���7iQ~8/1$e��x*|
�{����G
���"�y�%�������"����G>�;x�=rNı5�����q6�O�>�����n�M����o��\t��D�
��#+z���l�����I�u�o}~��<�����:��q��'�����\tc6-
�����$xkjY��৩<��t+���Ua�uQ�Ogu����d2'���\��Q���4l����������=hke��
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��ƄSZ�'(@(□����□□2�gre�>DžC□��ძ□n�S�)k���V�F�'(Bk��3OPL�T
�/K%zX□���e�bZJ�<;b��k□�9□� ���S□��T19x�□�'(;
\�□"□���%%}7��U□y�(Cɱ�!f□^���Tl��X���a�□Ք�□□��Z1�□□�<�□�□
������Al�□l)7[S�j�����f8��ҫհ�Ca�O��wi □�� r�A��JEVh�;VB3� B
Y������b��0Lq+TA0�□�,B�ʔ2���vX����7��a□�□)-
U□�T%��)M�Q)�l□O��□□A��tP□��M[iW��%�□�6��å2h�.
o��qT�=G�j,_�uu:Vb��b�S�w�y�□�□3���S��a�E�r□VLMYV(W□�□[□|
�;:□u□U���G�rm�w□kE-
v□�□|□d�□□□��Jek�{a□"H□S□�f'9@������1ᵻK]^�#�>OE�n�w�����□�□e��~
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\�L_□��&�m�k)��H�(��Dug_~�0u�[1�ᅋ7���)!8�6□���Q�;�$l���□□□��Q,��
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□6a�&□□:�� □���� □�□����□□�Ȁ��QH□3'�
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���e�,ⴻB}���}��~$������ ����t?]rA7�ꝺPn���4X����-
�O�5h�~2�AK���:��'�3�O�fuC�#g��H@��aG�t?Z4��z�ⴻ��t?
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������2��������Wx����b�~��3��� Q���QBW:E����������t?
��nf�~2㒞�8�'-4ⴻ�=�~�����,����������_t?�?��� 5���૭���������G:z��uJ-
ⴻP4+-;�ⴻ����Sɛ�b�F?ʦ�������'�N�����C
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��1�.�ΉC�v$Ә��s��rU�Vnua'eL���$�\�����{�7'��VS��sBQ㷛iQZ�AV�9T
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��Rrt_�Rr���Pr�Z□JNQ�C�□��C?��������□Q�w�□w��
C�□□ɾ�5�s)90�:���\���a����n�□)9�|/Rr�9�e□�� ��Pr
m4�□�:�□H�v(9�0m)9N�EJ□□0□J□�□K���L��□}
C����PrD���□�z9�□�S□J□�H�Rr0Lf)9��i(9G@�Rr���Pr�ô�□�8�□x+��□V�
�□3�C?w�y���□_{�n□��P��w~Pr��P����� 1� �□�6-□N�Hw□�ZX�□���+□
M�>□�,�□��A�@�□%��}Pr$□�□���
�)9I������□��K�J)9{□C���J����□J���h□�cRr�Z%>□����□v��Y�ät□tPr□s
k�x�C�1�□m��j6�K�A�/T8�ҡ���Rr� �Pr���Pr�G�Pr���Pr�Z-%GU�.%□}□
��□y,□%□�'-
%□□□,%g□ш����(9��s)9��c)9�{]J□x]□J□□□9□□□Sr(9C□□0)9]□□%□□9□%'□□Rr□Sd
)9�s�Rr�y�□��l�□(9��u��g.□dC�iju(9E�□%'��RrP��Pr��9�□��r(9��j)
9 ��Cɹ��Pr�□:���V��□�K���#�C?□g��□
)90"YJA□f)9��f)9�ee)9U�□%�□��J□�□
�Rr□s(9��v(9�\��□��Pr�{□J□dC?�a)9H%p(9�r□J□�)□%□□C�ij==T��□�□����Pr4
��□�@v(90N:���V��□�u(90�;���V��□>dK�A��C�□□�Cɹ�j)9��v(9�□w(9□#
p(9□□g□□K□?□□ MY�s������#□���Rr^J□������□F���C?})9/%�□□
�_J�0□T_J□��K��}�□��,J□���□�□]�(9E□c�)J□9\���C)□m�□I□�7V
X��πR���~□�□���3�□�<��□����□%□+□�"���b���R]"C+□,□□
�I□��BxR@�BxR@��□)++□���m�□��[�g���□R@Z?o□���□�□x�(�j�
�□���)□��P��ǯ��b□�□
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�*����C������M�����m���{)�M+1J��^��G.)�ZK������KC(L>#���%��:�
w�a���~����q��\�$��o�,��"J+�)Hd'<81亩���%нBG���-+h��b"ȷ�������|
�������^�|��K����������E���#7d�,�%���C?�$��:���\�����2���X�q
�WA�&��|������~�o��/���X�����'f�}�x�rB��y������ lmnɃ>
</>K���P.�����91����+����U�i�H��*����1�5$MB����"j�Ùq-���o�cC����e����{�wi
��1��$+��N��kBʲ�d�И�Vq�tD(�-i�b��uj���ɲ�L8��:O>������HR)4 �
��>&0�v��yYb�k��6
X�9js���K�<8N�3ӂN����a��)'����(�yr�r�0t<�P�d��'u/
����IF�;�.�IF������ �c;�]D�$�(�uB�Ōs�ZOj9����0�T
(�{��jD��cUc�y�@����E�'��~��s���U�B��[���������V>
����q��0�o�����~�������R�����
�������gVpA�N�E�N����(�X�}3J����(��afY-Y|
�o�t�s��J�ǉ�Q:Z��Q:������+���<�A��s�1(����S�N�wvP:�������*M���z�EMK�
��M��B%�,�{�ijM���C�Nak�;��q��_��"���]�S���|
���Q�c,kb�_�+��Il��F�I�÷�t��w�t���������4����X�3�ؼ����OQ:,�x�t��
学
�Ƕ��A�(��8~3J�������������(�x�7�t�Yç�������n����~��t����t�Ŧ����{�N�C/
�1Q:ⁿ�t�X?
E�d�~'J�$P�E�����Q:�e�Ằt���A���7�t��[Q:�n������z��������3������oG�@8�
A������(�����V�NR��� j��(��\+
(�<�������K�E�@V��(����~3J�����A����D������'J���=�Jă����������#w���sy@�@y1�
�t� �����y�(���2��
��t������0���0�iw��"��Ō����A����������Y�G|�M�ь�*���(Jg{l���J��������wm
�����UbF�!���?[�
�L����c&���d��,l�\������ϼ�V�ȝ���"J'������_B�D���(�_B�?
�S��zM_�O�t��9(���oF�\juP:���O�t0���ç����Q:��������)������c�7�t���@
����(�����(���E��E������������t�4^�����������Y˙}Q:/J�E�(���t����t^����1
(��P-���p>��8z�%�e���B�-�a���g�)9��������j�I���p�����P�&#F
�����������D�|�_�D����*����������\�E",�@9���X����������;U���#F�T_j�p���}�
��I\�����U%�$\������%��d=�v�(z�*ǫ����ϭ[o����������k���n^���N�U�'�#s~����1��
r�%ȝ�����Z��+>�g�]�N���Uj*�]|���]P���Z��/>�6W�������
���>$+L����n�kcfF������^�0�d���7�X�u���Ok���ŋ�w.z��t§���4s~���E�O�H{���D
�H�U�T� g$]�|�
����BN�M��4+�r)�������{�3��������U)�ԋ�i�4�����q�+!%"�]���s!
��Q(����������<4'���"�w������8���j�i�E�-�
�yf�T��������.����H����u_�d��)�Fa�L9©�#�����Na����ţk�RO����iD�~/�a眉
��D����:�E�r�����^bb6����V�W���M%����è�=H���������2@s����F�Ey���bŠʉђ}
� �b������#���(�"����'�{8�6�h3�9v�������<�,���q�u�����U�� ����Ǭ9��?
n���e�Y�@F���ЊA�������oo�8�E6�; ̄���c���~�w�z�%����VB���P���}
�O��;��������ɜs|�Z�IW���o�.�?�������cN�866��=�����������"���P���e�+���x���'
hZ
�0g���@����FY]����R�(�Sc�v1���f�wn]"��UM��������@9�����ȝ�W�������ĵ�X�v?
�����b"�g�&v���˛x�ȳ�L6$�~���.�L�����Yj����D�NK����S#O�M�3Q������
疱
���U���Y���3b�������������������d���=��9U�3���c��������$�����0UK���cM��
����Z;k�>(����ֆ����j_�����eRj���79K{����\T4}�<�M'�k���=���� �1�m���~dR��
��� �|�Kidž���'����qz�Kɪ���.}����F{[������/Mh�{?
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�lp�MP��%□g���m�x!ŭc�#H□�nē@G_����□�~�{��|□�□iE�
����□o��s���9□g□� ��
�|□zn□��e�=,f��□�F<'�����□��9]J��□V%:���RE�<�□K��□�gIVж�)��9�
B�1I7�7��v�w~I7{�yI7�;����{��^� [_ѣ�/
�fZ�K��:��t□3�K�yI7�S^��K���5>����t�n���n~�8��/����t□^�
[_��K�yI7�tC~�E��W���K□馈r�?E�!��ç}(�+���#I□���J��S�□P�W�□̀����□□
蔹□3□$o□□ăa%yT$□x]□$□V□K□g%ye□□<I^□x□O□□x□O□G□□
ee%y�□̥�u��$��[Q|PV�G��-�3����□��J�h?��□OI�W��罏
v�$□ö�_з����\4mR>$�'�c�□�8���,ℶDC8�UUsQ�M^□(U�i���□h�□p�□�yM�□�
��1�g=□�□j@�□4�]��-k□��"U�□uzo�V��o5���□□Y□�eK�7□□
��/[��Xy�q�z<�□�t��T�□n�m□�□�□D�□ □&��:t�XW��R�;
[□��k�jDq�□□□□zX/[□[□□K□□□□^□□=□Y□□□l□□□□v□□
��v�����□�B�RG�R7µ$$□�6□�·F4�Zz�b�□□�?L���� )���l� p□□□□□;□□~H□
T�:□E□'�R�0���$�PL:6�*�(□a6�躋□�I5 �/<□X□�□□��6� �t?;� b
5rBQ�w□�Od|□�etn�0+"�"N�s�□)□c��(�7R�2����-K�□8□□t
□[/^□IP□tD□□F□I2□□□□□□□□o□□□XT□U□□□8□$ŭӯa��~□�*i���5�□F\�4���R□□>7i
��F□��5�~�F4�;���}���0s�a�□ᄁ��D�"□j�s�□VeAɳ����2JtQ�□!
����@y�EN-□��w�g����̥S�e/rh32�q�v�E□-
�y�□s����Q�lE□r�sW�□M□�,g@�rO�{���=□-
~�#�����W�S�Ŭ�□��:��ɛI□□□□□□□□{□□]□□>□□G□□□_D□□□□}4G□.sw&□i1V□&□/�
� �n��^%\����8M□����& an7/��'$�p6;��6□G�Bx□□����□□�nM��S□�□Vc�|
�6�]S �.]□�e.�ZK(��□�D�d'0'��C�□$□□ək��U_Y�?��K�焯
5�/Iml�M�]Die□□���□���□,U�@�P�7H�N\x�e�l��r��ZzE��Rf���□|.Bf{ર□�
T.�E���RB=E���□�^:�□O�j�□�
q�x□j�+�wp������K□□b�û��q�□=□���□����□]�:□:□�Cb��'��
�5�□\�□Z�����9���Dq□��X�IP□CB�A}wKD_□/67�8^��� �□�I□�p#DM핡��F�-
yl��□u�VG�̠□Y��g□�pZ�4v�C□�Y□�t[�zn� {G�@����,VM□�v �,�A�□9,�|
□□□□□@J�� x1��j|dA~u�.�5□lW�9js�w�K�;8��3��N�□�4□�)'����(�yR�r
�0t<
J□□□□□□□□□□□□□□□V□□□□□{X□'□n□a□pw1\8□□□8:D#�ʸ□�Xᒥ\�□□жj@�□�T#�a�ₕ□U□
�□@<��<��я����P� □'Ux+v□□□8□@□□□□□□□□q□□0□o□□□□□□~□□□□□���
��□<S□□<S�□<��ժ��������7□�□2��□��h�g�0�g"<�□�$�~
���:�□�afY-□z�s�LU�7�g�s�□x□ӏ□�3Z��s���□xf?�/�����□x�□��}
���□x����j�_□��[9�□(l□�Oy؏g□[□�~ה���[��□�□��[#Gw?□
�D�̂c�g�_a�□��n�Y�]�� ���ƎuS�b���g�Z□���:□xf҈eL��;��Z�
L�3E����������̊Uc��□�^]2��%#O�L�Z□�R,��□/i�T�□□<���Z龕i
kC����ȭ�o�4□�/i□X□□>□4□X□□□K□□]□K□□□□K□□□^,
�"�□K□��□K□Ҝ��4□O�□K□���ij�f,
<����4�4�̑�����□������̥�ټz��\���i�X□X?;X□�~'�□�H����:�c, ��□,
�Q>�ҞG�biU□□□K□□R□K□k□o□□□s-
�□s��□K□kя�4��t�4��u�4�2�□K��z��□������4�□
�X□�����X□hW□��;□K����o��@��������v,
�:X□�~3�������$�:X��ꝗ�40�~���ɛ�����\,M3�X�b����4P□□�□����□��h□
□x□V□a□&m□□□d□□□□mr□e□ɯM:□���~3□z□�A□��Bk�x�□□��Bk□���□���.□�
��□□□������□�~����eyN□�□TzE����□�"�□���<r̂�{@k�□��� �□OB
�+W�>M�M�□��qbF�H��□�□��yp��Ak̤�W)��X]h�̗;_�� �lj�U�H���)��
:�AJ��□Oh�X□#"���hsR�s□y□□�3y□���R8�'#v�f�H�J-x�□ mf-�"�&□+"m�□�
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+;��Q�$�Ee\r���+���j#�im�@�dn���H�qP�Mä���������r�����@���VZYL������
������s����\�����/�����31�vY}�)�谔@����₩8 \�L�V�G�b�Qw�&�Mb
X#�D��ŕ���p&/�����Q�Շ,�\����m>���uJ�]��+����_�5�ay/
ւ�"H��l����%�D�E����q̈F����-���8��V����ᵇ����*}���_�w������9�y\���_m��1�]��
v��m���P&����'���`��ˉ�
��w�������~�m+����{X]��r�B��:�Ĥ�V&O�)m�@e�&�lue�ǹ��{��l���Y�1�(�&E{W
�ɀ�O���1������k6�(�&[s������}�ዖ_�D_�q��5,�sY��!E��d-
��D��ǐl�g�w�w��Ne��q�����r�Y-
+P������r�5S�[�4J����O��w����s������ȝ���?�B��B��B�gλ�6��-@�=-
��'��i� ���[hCi��B��Zh����[h�0�n��n���-���P�w�m�|�����v�Vn��
�<�5�U�x���B��B;���������o�4.�_�����=_��,aD7

L�6������(ᵞ�2��6�4�k�w=�����������W?�E66+4@��N������YW6#6���������T�'
XQ{s��z7�������p:D�W�u�VL�����
��_2�VTv����V�rD<�����c�Tx�8�ȹ�Q;��G��������Ph�S�1��coh������~������
v�V�~{��q�������l}
������E��h���6�������~;��o��o7����z��~���������h�+��l�M����
;� ��z|P�oWd�����v��
�����P=�oc�*��6L�J�m�b����$)��a�V�oC�����ϟ����wW��h��]������~��;�
������6� ��6��z�ϟ�Ci�]ϟ���s�ô̂s�������l�������~
[��J�mp�J���V��6�:J�m�6����(��a�:�o;
�����6³�6n�J�m�����g˧�����]n����������gl�]�����绂
���P�l�����g����Ji� �Ji�}
Ÿ�J��V�J�m�WJ�mLD�������'���n�����������������x��6}
������Y��o����g�ǐnzk��+���\�2V�n�����~���?���j�M�Y���D��l�v���
����~���_�����o�]P��])�Σ6��C����d>�������!�,�����s��x�L.P��#�y?�
�������x� ��&���t<�����(���������
����7�C����Ó"�Ḇ"�K[�x��Nu�<s������<���)�lA����x���Dw�g�z�gw�����s���A}
�C������C��!1��x�Bwe�x���s������x����!��l��sF9�]���6v�ghV�N�g'��3�F7�9��a�
���-{m�����2�����V��-;��������5�n��WQ��C���p�<���"�x�<g��v������sF�!
�Q�i�x���F��Ͼ��{/�g_=X��g����C�������ϖC�E�������g ����匋��
濵�<{<9����m����k�N���hdML;��$3QZ�^�S����sF}�ń��0O������h�D����>FW�
��&�#u_����F����8p] %�l�i��[����X9����+��dk�n�B����'
̡���Z�duY��d5$V�d53�5�j�d�����!Y]�rxHVW!��KVW�R�%����UvJV_�!
�t�d5�����j��ɿd��=����v����]��d���j�-���j�?T$��������j�>����(�wHV����ᠷ
��Ȳ]�:�|HV�2�!Y������A��w������������!Y�-
Zw���|HVG��;$#����������:f�du�����N����ꚭD�����C������.Y
���.8tp�����V$Q���'�VU����%���$���Kl��L\!@�,=<ʜ����6B�z��68����j#���.Q
ɔ"Qm�Z}HT�{���jp����&㝏�9owJT[���>$�-
��C�����������G1�;E���yW)w����!P�Q����(����ʋ�����_��ůa��������D���������
L_\�������_%~���"~ ʅ̧��
StÇ>kh����50������5*H�_�����X�Kf�T�����2������������*�I���Ǝ���46��46�����4v�����)�
����)�-6�C�[�������{Hcg�<f̧%�����6�46�!M������������������Ń4v�nA̧RVMb�������
��!88�jg-�NE�´�КKH��w� �Bw� Y���d�_8�����$�
.�+Y��0��"R;�bB;,�������������a�����!���c_���)������Vx���hq�rV�S8�����X�)����:OY�
����>�����3��6�����vc|���.�������K����,�
i����������"���cl����8�ż�h�����b�]V�Ŕɦ�>�����SN�����W���x����b�����>K�V���Oʌ!"L
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Íq�o�G�/�?�mNc�L�^M"M��□�=x �)��_�}⺈�j□�73��\□w
�<�□UPE>��□����□���□�□7E��□�3���\1R�□�3��eA7���Q>�zT�□x�5�□�□��
�B□�X|����h��Q?czx˒� [�□���V�z□ [#}
��□'[#�♀□��Ж��Ǯ1=□����(�1=��1R�□�3�G�6\□[□Z□)L����v���p?
az$�c��5�gL�□�6 [#□����□%;
[#�♀□□�il��)�#�□)l��□ūX□rW�□��2□ū@�s�5�L�ʻ��!Z����Q]�����Ɣ��H�">□u�Z^
3=�b�M�s���□s�[�<���i��V����Ommwz������&��}�fi�a��,�1Ms□��?
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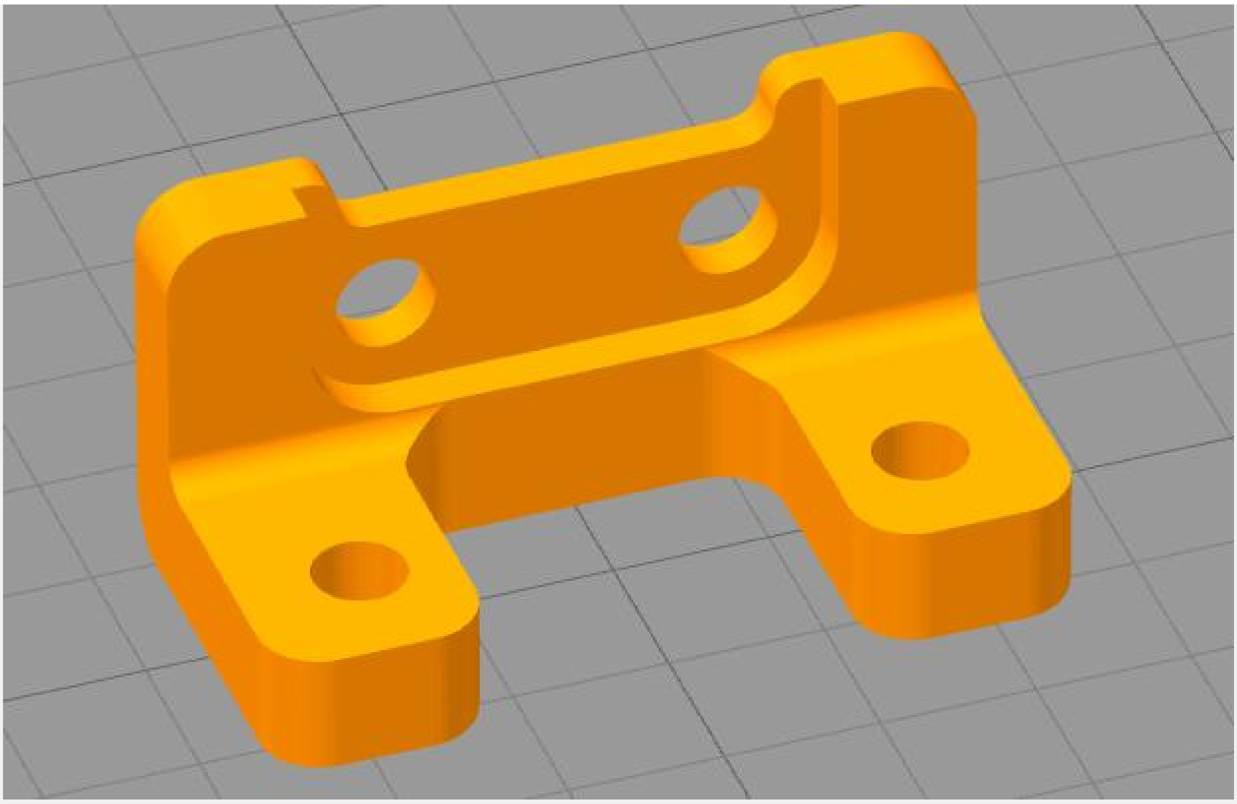
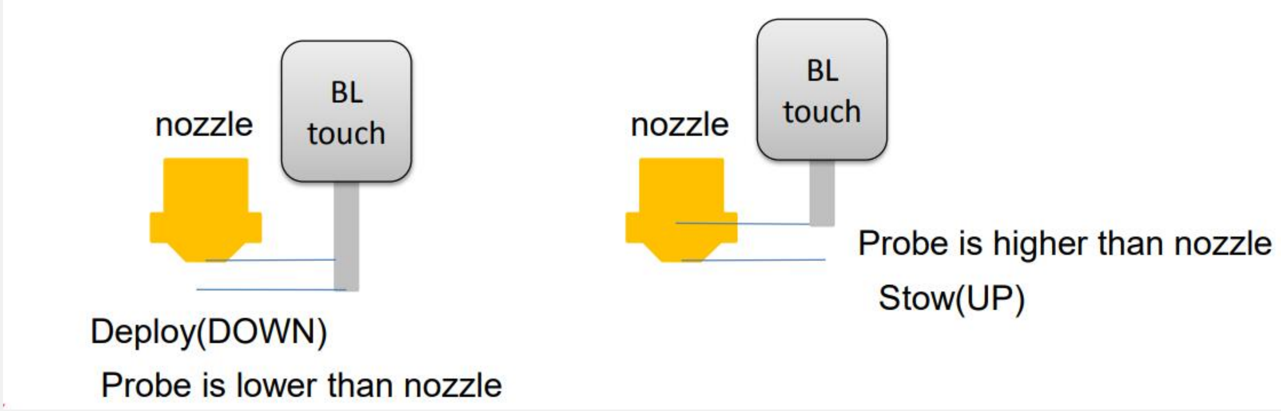
�~�P v□�=H���5���) }
�",�e���������$BWc□□��y���□��oN��□oA□□������□�□��.�T�e��j'��
�
8�\�����□�����□��3Q�ή�B��q��\�$���□�X�r����BY��y□���h�[6M□□8
�m#�L□�□[□��=}6������b□�n4���□���0Q<□C<��@��Q�����2$□m�Ğ&��w□
�X?�nq����k"□C�+□g]��
�.Z�□�F�p��j~wp�"□�&������□�q□�R�2�□ZoA��:|□L�xB�5��HB�d��sD□H□□
��2$�N□□I�{[�□$��^�RðA��□����2�F�xK�k�□�F��I□�.���□��4�
�+p�n&i^□-~□^_B��C�s@□F�Xt�@v�%C����8O�U��G��E□7P=Z�� ���¯
\QxW��\Ay�D��□.□U��\���□]�K�/��[��}?��O□��?��_O������_N?
��□�uC�_������□�A��v?
_��~��x����ăo�N�w□w_��s����������o��□���_8□F@{w□���}�?
��t{�e�K��=?\�|����p�������o�NN���������?��t��p�?o>�?
\□:�����O:□:�������;�o�������_□{xwR�Ks��w8�����>|□a�������x
�8�����□PK□□□�□����□����%V��y� N���^□�□����������
�������BLtouch_Bracket.STLPK□□□�□����□����%V�vu(t�□��h �□�������□�
���QN��BLtouch_Bracket.gcodePK□□�����□�□��������□���
```

> 
>
> Check the installation position of BLtouch, let its probe is lower than nozzle when it is deploy, and its probe is higher than nozzle when it is stow.
>
> 
>

nozzle
> BL touch
> Deploy(DOWN)
> Probe is lower than nozzle
> nozzle
> BL touch
> Probe is higher than nozzle
> Stow(UP)

Wiring

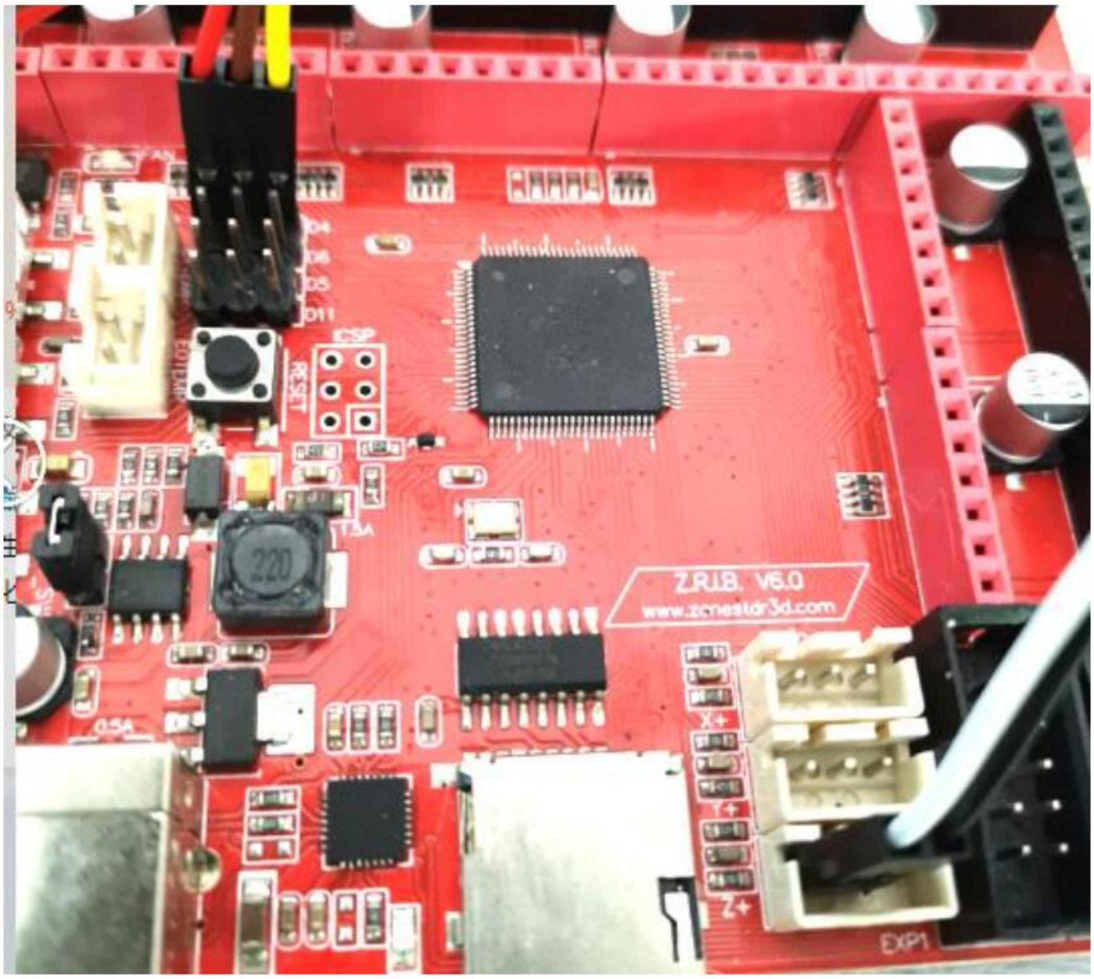
1. Pin define of 3DTouch / BLTouch

Bltouch wire color	3D touch wire color	3D touchh(V3.1) wire color	Signal name
Brown	Green	Brown	GND
Red	Red	Red	+5V
Yellow	Yellow	Yellow	Drive (SERVO)
White	White	White	Sensor
Black	Black	Black	GND

3D TOUCH
G 5V S G Z-

SMART V3.1
GND VDD SIG GND ZMIN

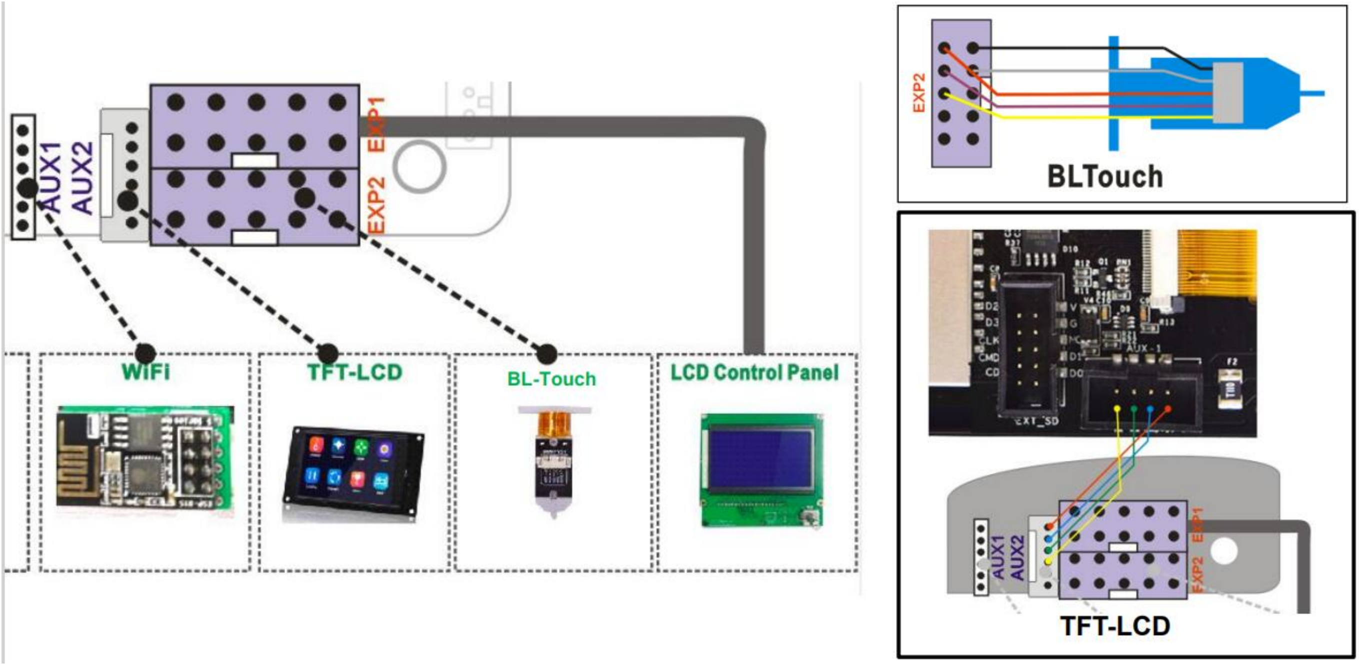
Wiring for ZRIB control board

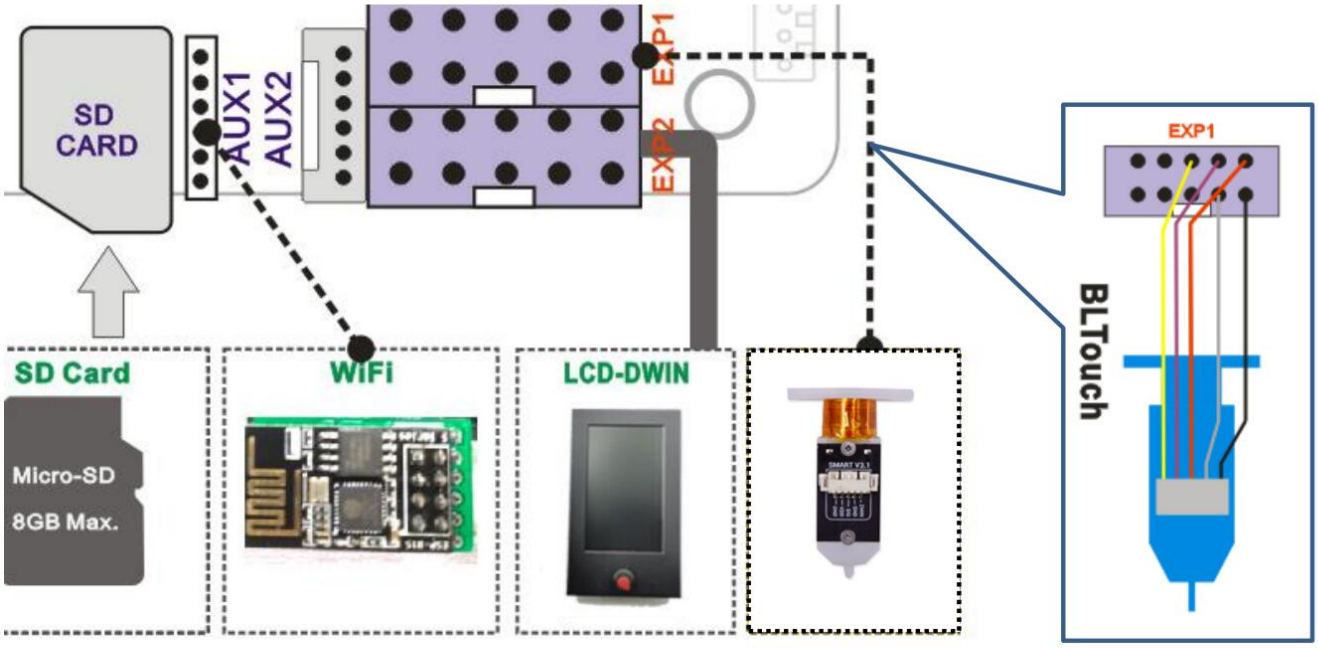

D4
Z.R.I.B. V6.0
www.zcnestdr3d.com
X+
Y+
Z+
EXP1

3 PIN
VDD ⇔ +
GND ⇔ -
SIG ⇔ D4

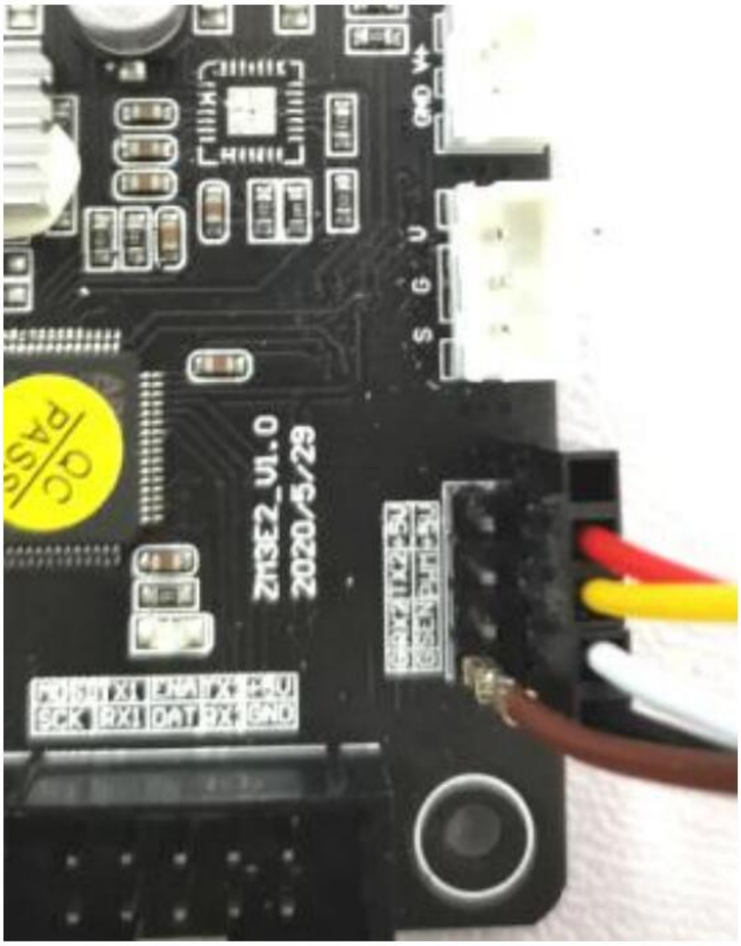
2 PIN
GND ⇔ -
MIN ⇔ S

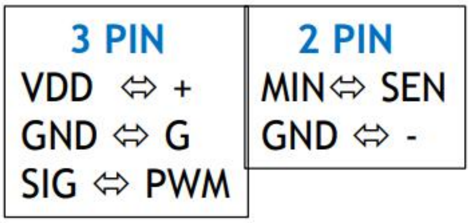
Wiring for ZM3E4 control board


AUX1
AUX2
EXP1
EXP2
WiFi
TFT-LCD
BL-Touch
LCD Control Panel
EXP2
BLTouch
EXT_SD
AUX1
AUX2
EXP1
EXP2
TFT-LCD


SD
CARD
AUX1
AUX2
EXP1
EXP2
SD Card
Micro-SD
8GB Max.
WiFi
LCD-DWIN
EXP1
BLTouch

Wiring for ZM3E2 control board





3 PIN	2 PIN
VDD ⇔ +	MIN⇔ SEN
GND ⇔ G	GND ⇔ -
SIG ⇔ PWM	

Verify installation and wiring

For LCD12864 screen

1. Power on the printer, and watch the LED on the Bltouch, LED will light if wires is connected well and Power on. Red LED will light if the probe is triggered.
2. Operate the control panel, ***Configuration>>Bltouch>>Reset***.
3. Operate the control panel, ***Configuration >>Bltouch>>Self-test***, Probe will deploy and stow automatically, you can check if the installation height.
4. Operate the control panel, ***Configuration >>Bltouch>>Reset***.
5. Operate the control panel, ***Configuration >>Bltouch>>Deploy***, the probe will move up.
6. Operate the control panel, ***Configuration >>Bltouch>>Stow***, the probe will move down.

For LCD-DWIN screen

1. Power on the printer, and watch the LED on the Bltouch, LED will light if wires is connected well and Power on. Red LED will light if the probe is triggered.
2. Operate the control panel, ***Control >>Bltouch>>Reset***.
3. Operate the control panel, ***Control >>Bltouch>>Self-test***, Bltouch will deploy and stow automatically, you can check if the installation height.
4. Operate the control panel, ***Control >>Bltouch>>Reset***.
5. Operate the control panel, ***Control >>Bltouch>>Deploy***, the probe will move up;
6. Operate the control panel,*** Control >>Bltouch>>Stow***, the probe will move down.

Measuring the flatness error data of the hot bed

After installed the 3DTouch/BLTouch and completed the wiring, you need to do some steps to measure the flatness error data of the hot bed.

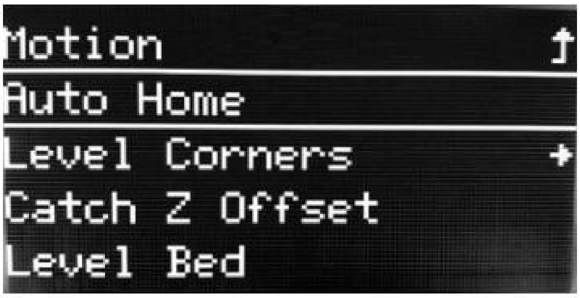
1. Level corners.

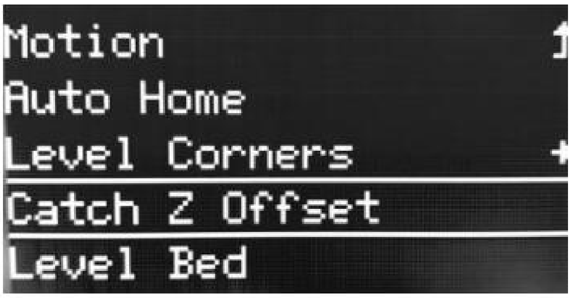
If leveling nuts and springs are installed between your printing platform and the bed bracket, you need to manually level the four corners of the hot bed to a basically same height. Please refer to the instructions for the 3D printer for the specific process.

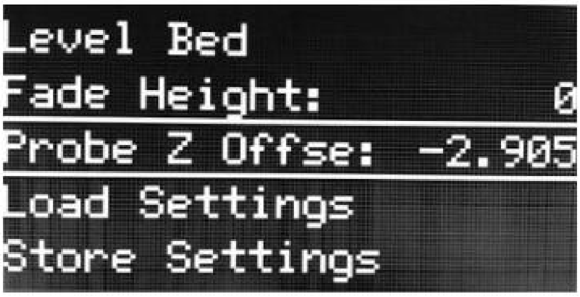
2. Catch Prob Z offset

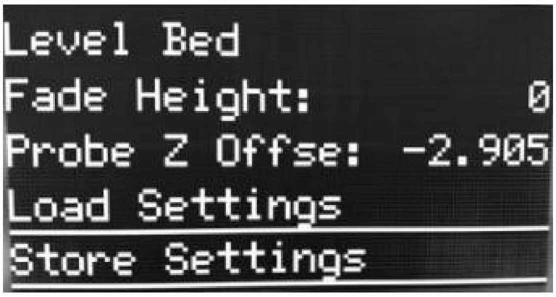
Since the installation position of the 3DTouch/Bltouch on the print head for each machine cannot be completely consistent, we need to first obtain a height deviation between the bottom of the nozzle and the bottom of the leveling probe, also known as the **Probe Z Offset**.
NOTE: Due to the deformation of the hot bed under heating and unheated conditions, we suggest heating the hot bed to about 60 ° for this test.

- **For LCD12864 screen**
  1. Do ***Montion>> Bed Leveling>> Auto HOME***
  2. Do ***Montion>> Bed Leveling>> Catch Z Offset***
  3. Wait for the end of the test to see the Z offset value. Do Montion>> Bed Leveling>> Probe Z Offset.
  4. Do ***Montion>> Bed Leveling>> Store Settings***, Save the Z offset value.


Motion
Auto Home
Level Corners
Catch Z Offset
Level Bed

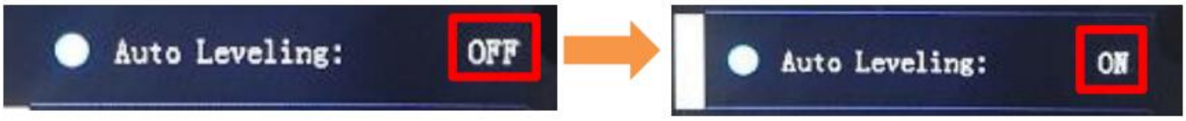

Motion
Auto Home
Level Corners
Catch Z Offset
Level Bed


Level Bed
Fade Height: 0
Probe Z Offse: -2.905
Load Settings
Store Settings


Level Bed
Fade Height: 0
Probe Z Offse: -2.905
Load Settings
Store Settings

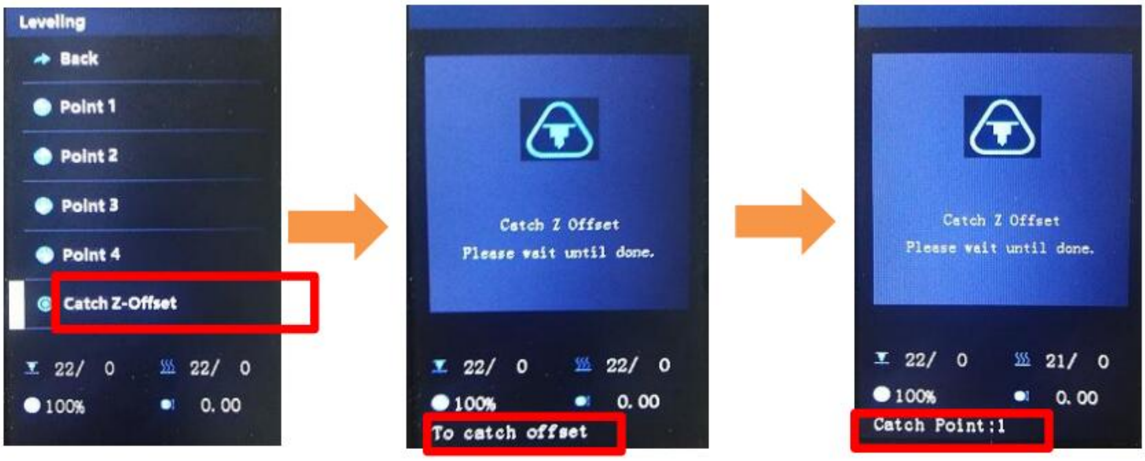
- **For LCD-DWIN screen**
  1. Set the HOME Z OFFSET to 0. Do ***Control>>Configure>>HOME Z Offset: 0.0*** and then Do ***Control>>Store settings***.
  2. Do ***Control>> Configure>> Auto Leveling(From OFF to ON)*** to turn on "Auto leveling" menu

3. Do ***Prepare>> Bed Leveling>>Catch Z-Offset***



Auto Leveling: OFF

Auto Leveling: ON


Leveling
Back
Point 1
Point 2
Point 3
Point 4
Catch Z-Offset
22/ 0
22/ 0
100%
0.00
22/ 0
22/ 0
100%
0.00
22/ 0
21/ 0
100%
0.00

Catch Z Offset
Please wait until done.

To catch offset

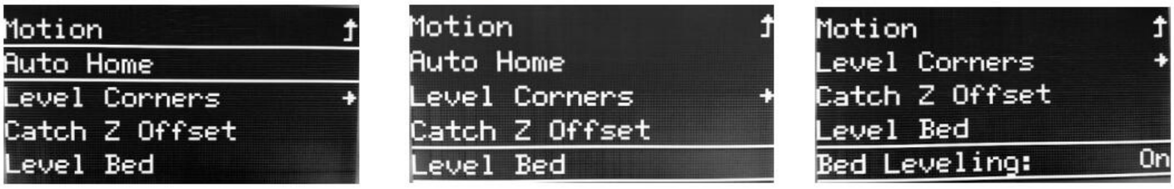
Catch Z Offset
Please wait until done.

Catch Point:1

3. Do leveling measure

Next, you need to run a hot bed height deviation measurement, and the measured deviation value will be saved in the machine's memory. When printing, the machine will perform height correction according to this deviation value.

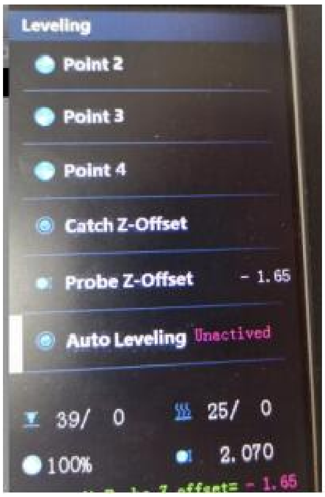
- **For LCD12864 screen**
    1. Do ***Montion>> Bed Leveling>> Auto HOME***
    2. Do ***Montion>> Bed Leveling>> Level Bed***
    3. Wait for the end of the test.Operate Auto Home again, the auto leveling will change from off to on. It indicates that the automatic leveling feature is actived.

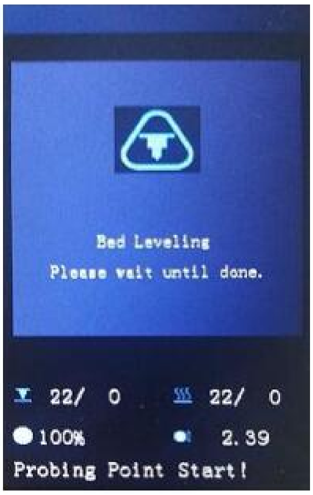

Motion
Auto Home
Level Corners
Catch Z Offset
Level Bed
Motion
Auto Home
Level Corners
Catch Z Offset
Level Bed
Motion
Level Corners
Catch Z Offset
Level Bed

Bed Leveling: On

- **For LCD-DWIN screen**
  Do ***Prepare>> Bed Leveling>>Auto Leveling***

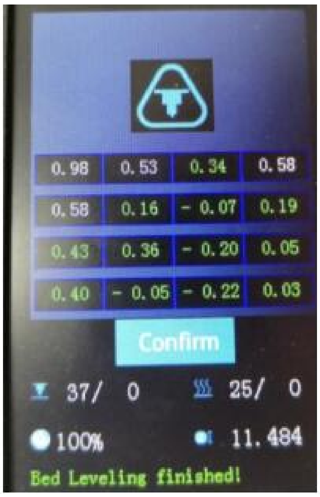
After measure done, the state of Auto leveling on Leveling menu will change from *Unactived* to *Actived*.


Leveling
Point 2
Point 3
Point 4
Catch Z-Offset
Probe Z-Offset -1.65
Auto Leveling Unactived
39/ 0
25/ 0
100%
2.070


22/ 0
22/ 0
100%
2.39

Bed Leveling
Please wait until done.

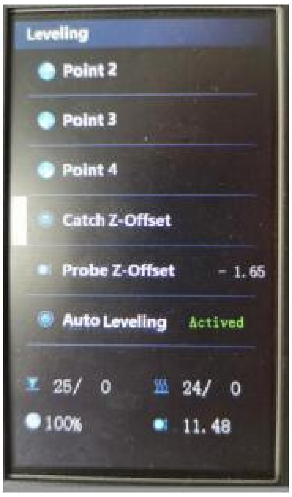
Probing Point Start!



0.98	0.53	0.34	0.58
0.58	0.16	-0.07	0.19
0.43	0.36	-0.20	0.05
0.40	-0.05	-0.22	0.03

Confirm
37/ 0
25/ 0
100%
11.484

Bed Leveling finished!

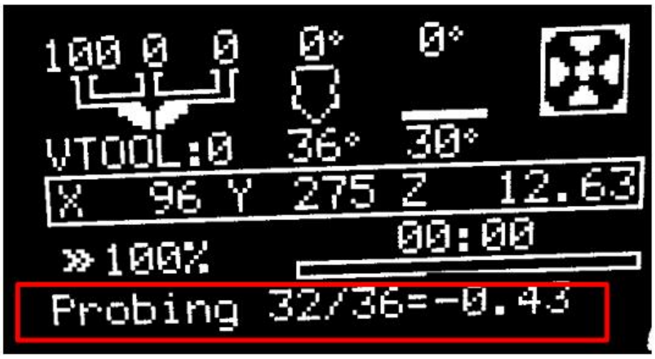

Leveling
Point 2
Point 3
Point 4
Catch Z-Offset
Probe Z-Offset -1.65
Auto Leveling Actived
25/ 0
24/ 0
100%
11.48

4. Check the measuing data

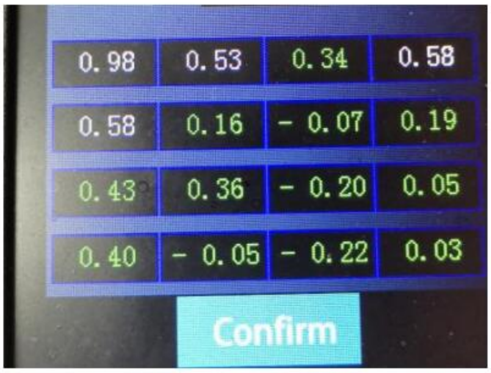
During the measurement process, you can check the measured data and determine whether the deviation is too large to correct the hot bed, or there may be other issues.
NOTE:

1. The measurement result should be between -1.0 to 1.0 mm. If it exceeds, it is recommended that you try to fine tune the printer or improve the flatness of the hotbed, because it may affect the printing quality.
2. If you found that there is a large deviation in data arrangement between the Left/Right sides or the Front/Back sides, please adjust the bottom screw of the hotbed (when the data is + turn down the hotbed, when the data is - turn up the hotbed).

- **For LCD12864 screen**, the measuring data will show on the bottom of screen when probing.
- **For LCD-DWIN screen**, the measuring data will show on the LCD screen when probing.


100 0 0
0°
0°
VTOOL:0
36°
30°
X 96 Y 275 Z 12.63
»100%
00:00

Probing 32/36=-0.43



0.98	0.53	0.34	0.58
0.58	0.16	-0.07	0.19
0.43	0.36	-0.20	0.05
0.40	-0.05	-0.22	0.03

Apply bed auto leveling feature

Auto leveling feature will be disable automatically when the printer reset, you can turn it on manually or let it do automatically every time when printing from SD card.

Active auto leveling feature by manually

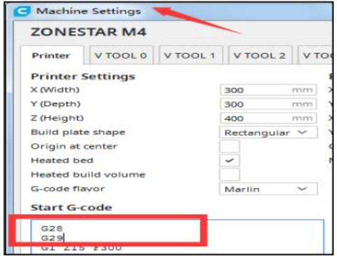
- **For LCD12864 screen**
  1. Do ***Motion>> Bed Leveling>> Level Bed >>Auto Home***
  2. Do ***Motion>> Bed Leveling>> Level Bed >>bed leveling: OFF*** Change to ***ON***.
- **For LCD-DWIN screen**

1. Do ***Prepare>> HOME>> Home All***
2. Do ***Control>> Configure>> Active Autolevel: OFF*** Change to ***ON*** After do these 2 steps, the printer will apply stored leveling correction parameters in the last "bed leveling". ⚠️ **Note: if you adjusted the bed screws or probe, you need to do "Measuring the flatness error data of the hot bed" again before activing auto leveling feature by manually**.

👍 Active bed auto leveling each printing from SD card.

It is recommended to add an automatic leveling measurement to the "start gcode" code of slicing software, so that a flatness measurement is performed before each printing.
To add a G29 command following G28 command in the "start gcode" of slicing software.

@ Cura



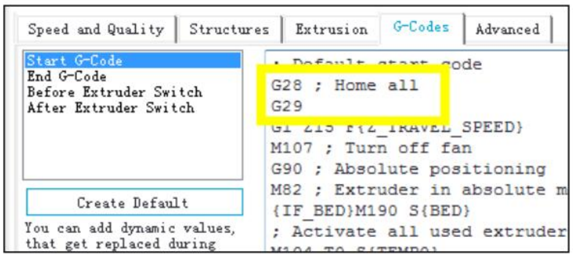
ZONESTAR M4

Printer Settings
X (Width) 300 mm
Y (Depth) 300 mm
Z (Height) 400 mm
Build plate shape Rectangular
Origin at center ☐
Heated bed ☑
Heated build volume ☐
G-code flavor Marlin

Start G-code

```
G28
G29
```

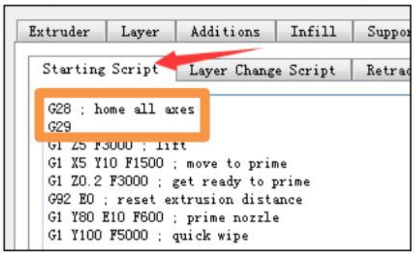
@ Repetier-host Cura Engine



You can add dynamic values, that get replaced during

```
; Default start code
G28 ; Home all
G29
G1 Z15 F{Z_TRAVEL_SPEED}
M107 ; Turn off fan
G90 ; Absolute positioning
M82 ; Extruder in absolute m
{IF_BED}M190 S{BED}
; Activate all used extruder
```

@ Simplify3d



```
G28 ; home all axes
G29
G1 Z5 F3000 ; lift
G1 X5 Y10 F1500 ; move to prime
G1 Z0.2 F3000 ; get ready to prime
G92 E0 ; reset extrusion distance
G1 Y80 E10 F600 ; prime nozzle
G1 Y100 F5000 ; quick wipe
```

Appendix

What is “Probe Z offset ”and “HOME Z offset”

“probe Z offset”: it means the distance from the nozzle to the the sensing plane while the probe is triggered. **“Catch Z Offset”** function will get an average of **“probe Z offset”** automatically. We MUST manual level the bed before doing **“Catch Z Offset”**, otherwise the printer can’t get **“probe Z offset”** correctly.

How to correct “Probe Z offset ” and “HOME Z offset”

For various reasons, the settings of **“home Z offset”** and **“probe Z offset”** may not be accurate, so you can manually adjust them to be more accurate.

1. When doing **bed leveling > > auto leveling**:

- if most of the obtained data showed in the table are shifted to the Positive, you can decrease the **“Probe Z offset”** and do **"auto leveling/level bed"** again.
- if most of the obtained data showed in the table are shifted to the Negative, you can increase the **“probe Z offset”** and do **"auto leveling/level bed"** again. PS: Ignore the datas at the 4 corners, it will be optimized in the firmware.

2. If you find that the nozzle is too close/far away from the printing plane when printing the first layer, you can incease / decrease **home Z offset** then print it again.