

Regi Peri

Debug X

LS 3D_Cube_Sphere LinkServer Debug [C/C++ (NXP Semiconductors) MCU Application]

3D_Cube_Sphere.axf [LPC1769 (cortex-m3)]

Thread #11 (Running)

arm-none-eabi-gdb (10.2.90.20210621)

src

main.c

```
*main.c X world_config.h drawSquare.c cube.h cr_startup_lpc1 drawline.h sphere.h
19 #include "Cube.h"
20 #include "sphere.h"
21 #include "drawline.h"
22 #include "world_config.h"
23
24 int main (void)
25 {
26     uint32_t pnum = PORT_NUM;
27     pnum = 0 ;
28     if ( pnum == 0 )
29         SSP0Init();
30     else
31         puts("Incorrect Port!");
32     lcd_init();
33     // fill background color with
34     fillrect(0, 0, ST7735_TFTWIDTH,
35     pworld Eye_Loc; //virtual camera
36     //E(x,y,z) = (200, 200, 200) and
37     Eye_Loc.x = 200;
38     Eye_Loc.y = 200;
39     Eye_Loc.z = 200;
40     // Rho, sintheta, costheta, sinphi and cosphi
41     float Rho = sqrt(pow(Eye_Loc.x,
42
43     float cos_theta = Eye_Loc.x / sqrt(Rho);
44     float sine_theta = Eye_Loc.y / Rho;
45     float cos_Phi = Eye_Loc.z / Rho;
46     float sine_Phi = sqrt(pow(Eye_Loc.z /
47
48     //define the x-y-z world coordinates
49     pworld *world = malloc(4*sizeof(pworld));
50     world[0] = 0.0; world[1] = 0.0; world[2] = 0.0; world[3] = 1.0;
51
52     world[4] = 0.0; world[5] = 0.0; world[6] = 0.0; world[7] = 1.0;
53
54     world[8] = 0.0; world[9] = 0.0; world[10] = 0.0; world[11] = 1.0;
55
56     world[12] = 0.0; world[13] = 0.0; world[14] = 0.0; world[15] = 1.0;
57
58     world[16] = 0.0; world[17] = 0.0; world[18] = 0.0; world[19] = 1.0;
59
60     world[20] = 0.0; world[21] = 0.0; world[22] = 0.0; world[23] = 1.0;
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62     world[24] = 0.0; world[25] = 0.0; world[26] = 0.0; world[27] = 1.0;
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64     world[28] = 0.0; world[29] = 0.0; world[30] = 0.0; world[31] = 1.0;
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66     world[32] = 0.0; world[33] = 0.0; world[34] = 0.0; world[35] = 1.0;
67
68     world[36] = 0.0; world[37] = 0.0; world[38] = 0.0; world[39] = 1.0;
69
70     world[40] = 0.0; world[41] = 0.0; world[42] = 0.0; world[43] = 1.0;
71
72     world[44] = 0.0; world[45] = 0.0; world[46] = 0.0; world[47] = 1.0;
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74     world[48] = 0.0; world[49] = 0.0; world[50] = 0.0; world[51] = 1.0;
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76     world[52] = 0.0; world[53] = 0.0; world[54] = 0.0; world[55] = 1.0;
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78     world[56] = 0.0; world[57] = 0.0; world[58] = 0.0; world[59] = 1.0;
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80     world[60] = 0.0; world[61] = 0.0; world[62] = 0.0; world[63] = 1.0;
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82     world[64] = 0.0; world[65] = 0.0; world[66] = 0.0; world[67] = 1.0;
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84     world[68] = 0.0; world[69] = 0.0; world[70] = 0.0; world[71] = 1.0;
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86     world[72] = 0.0; world[73] = 0.0; world[74] = 0.0; world[75] = 1.0;
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88     world[76] = 0.0; world[77] = 0.0; world[78] = 0.0; world[79] = 1.0;
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90     world[80] = 0.0; world[81] = 0.0; world[82] = 0.0; world[83] = 1.0;
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92     world[84] = 0.0; world[85] = 0.0; world[86] = 0.0; world[87] = 1.0;
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94     world[88] = 0.0; world[89] = 0.0; world[90] = 0.0; world[91] = 1.0;
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96     world[92] = 0.0; world[93] = 0.0; world[94] = 0.0; world[95] = 1.0;
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98     world[96] = 0.0; world[97] = 0.0; world[98] = 0.0; world[99] = 1.0;
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105    world[104] = 0.0; world[105] = 0.0; world[106] = 0.0; world[107] = 1.0;
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109    world[110] = 0.0; world[111] = 0.0; world[112] = 0.0; world[113] = 1.0;
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113    world[118] = 0.0; world[119] = 0.0; world[120] = 0.0; world[121] = 1.0;
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115    world[122] = 0.0; world[123] = 0.0; world[124] = 0.0; world[125] = 1.0;
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117    world[126] = 0.0; world[127] = 0.0; world[128] = 0.0; world[129] = 1.0;
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119    world[130] = 0.0; world[131] = 0.0; world[132] = 0.0; world[133] = 1.0;
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293    world[478] = 0.0; world[479] = 0.0; world[480] = 0.0; world[481] = 1.0;
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295    world[482] = 0.0; world[483] = 0.0; world[484] = 0.0; world[485] = 1.0;
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311    world[514] = 0.0; world[515] = 0.0; world[516] = 0.0; world[517] = 1.0;
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317    world[526] = 0.0; world[527] = 0.0; world[528] = 0.0; world[529] = 1.0;
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319    world[530] = 0.0; world[531] = 0.0; world[532] = 0.0; world[533] = 1.0;
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321    world[534] = 0.0; world[535] = 0.0; world[536] = 0.0; world[537] = 1.0;
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323    world[538] = 0.0; world[539] = 0.0; world[540] = 0.0; world[541] = 1.0;
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325    world[542] = 0.0; world[543] = 0.0; world[544] = 0.0; world[545] = 1.0;
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327    world[546] = 0.0; world[547] = 0.0; world[548] = 0.0; world[549] = 1.0;
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329    world[550] = 0.0; world[551] = 0.0; world[552] = 0.0; world[553] = 1.0;
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331    world[554] = 0.0; world[555] = 0.0; world[556] = 0.0; world[557] = 1.0;
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335    world[562] = 0.0; world[563] = 0.0; world[564] = 0.0; world[565] = 1.0;
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337    world[566] = 0.0; world[567] = 0.0; world[568] = 0.0; world[569] = 1.0;
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339    world[570] = 0.0; world[571] = 0.0; world[572] = 0.0; world[573] = 1.0;
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345    world[582] = 0.0; world[583] = 0.0; world[584] = 0.0; world[585] = 1.0;
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347    world[586] = 0.0; world[587] = 0.0; world[588] = 0.0; world[589] = 1.0;
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349    world[590] = 0.0; world[591] = 0.0; world[592] = 0.0; world[593] = 1.0;
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363    world[618] = 0.0; world[619] = 0.0; world[620] = 0.0; world[621] = 1.0;
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409    world[710] = 0.0; world[711] = 0.0; world[712] = 0.0; world[713] = 1.0;
410
411    world[714] = 0.0; world[715] = 0.0; world[716] = 0.0; world[717] = 1.0;
412
413    world[718] = 0.0; world[719] = 0.0; world[720] = 0.0; world[721] = 1.0;
414
415    world[722] = 0.0; world[723] = 0.0; world[724] = 0.0; world[725] = 1.0;
416
417    world[726] = 0.0; world[727] = 0.0; world[728] = 0.0; world[729] = 1.0;
418
419    world[730] = 0.0; world[731] = 0.0; world[732] = 0.0; world[733] = 1.0;
420
421    world[734] = 0.0; world[735] = 0.0; world[736] = 0.0; world[737] = 1.0;
422
423    world[738] = 0.0; world[739] = 0.0; world[740] = 0.0; world[741] = 1.0;
424
425    world[742] = 0.0; world[743] = 0.0; world[744] = 0.0; world[745] = 1.0;
426
427    world[746] = 0.0; world[747] = 0.0; world[748] = 0.0; world[749] = 1.0;
428
429    world[750] = 0.0; world[751] = 0.0; world[752] = 0.0; world[753] = 1.0;
430
431    world[754] = 0.0; world[755] = 0.0; world[756] = 0.0; world[757] = 1.0;
432
433    world[758] = 0.0; world[759] = 0.0; world[760] = 0.0; world[761] = 1.0;
434
435    world[762] = 0.0; world[763] = 0.0; world[764] = 0.0; world[765] = 1.0;
436
437    world[766] = 0.0; world[767] = 0.0; world[768] = 0.0; world[769] = 1.0;
438
439    world[770] = 0.0; world[771] = 0.0; world[772] = 0.0; world[773] = 1.0;
440
441    world[774] = 0.0; world[775] = 0.0; world[776] = 0.0; world[777] = 1.0;
442
443    world[778] = 0.0; world[779] = 0.0; world[780] = 0.0; world[781] = 1.0;
444
445    world[782] = 0.0; world[783] = 0.0; world[784] = 0.0; world[785] = 1.0;
446
4
```