

# Color Sensor(S11059-02DT)

20140413

Reference;  
i2c\_utility\_0.2.1.f  
ColorSensor0.2.f

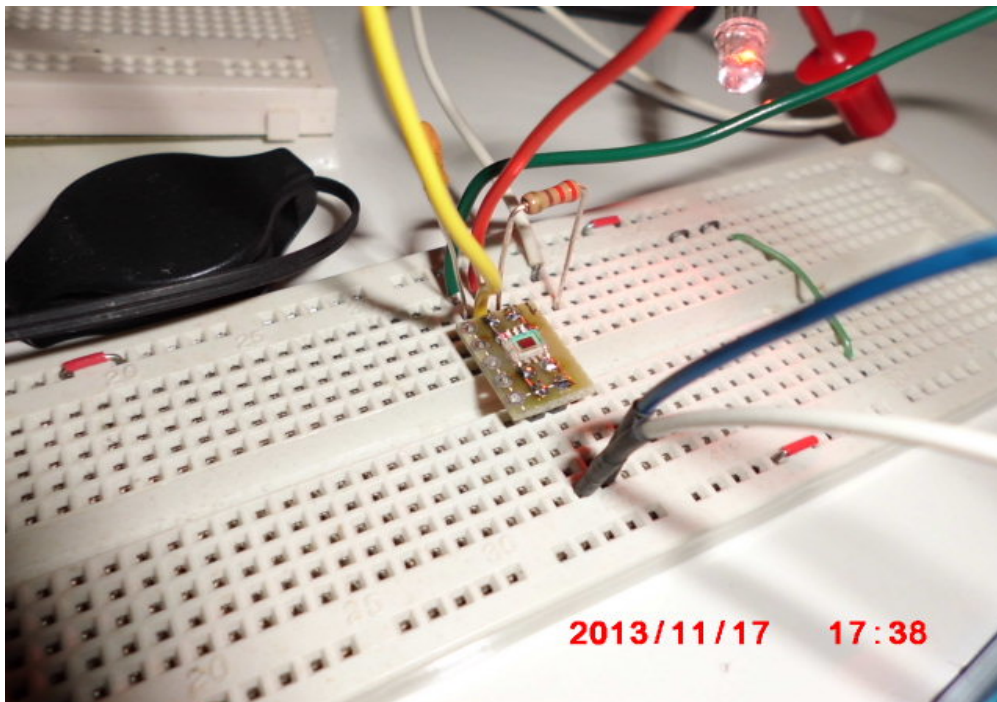
ColorSensor's address is h2A.

```
Prop0 Cog6 ok
i2c_detect
  0 1 2 3 4 5 6 7 8 9 A B C D E F
00: - - - - -
10: - - - - -
20: - - - - - 2A - - - - -
30: - - - - -
40: - - - - -
50: 50 - - - - -
60: - - - - -
70: - - - - -
i2c_device:2
```

Display default setting (After power on,)

```
Prop0 Cog6 ok
test
control:E4
manual timing:C30
```

```
Prop0 Cog6 ok
```



Checking write-register

Prop0 Cog6 ok

test

control:E4

manual timing:0C30

Prop0 Cog6 ok

hD31 Set\_manual\_timing test

control:E4

manual timing:D31

Cycle power

Prop0 Cog6 ok

test

control:E4

manual timing:C30

Mode>manual Gain:Low Tint:00(175usec) IntegralTime:546msec  
Each color of full-color-LED is on above ColorSensor.  
And infrared-LED also is on above ColorSensor.

```
Prop0 Cog6 ok
sample1
Infrared:810 Blue:6469 Green:5330 Red:3199
Infrared:498 Blue:1777 Green:3828 Red:4159
Infrared:650 Blue:1888 Green:4154 Red:6416
Infrared:676 Blue:1905 Green:4259 Red:6751
Infrared:1923 Blue:2942 Green:8256 Red:17661      RED
Infrared:1767 Blue:2654 Green:6412 Red:22939
Infrared:646 Blue:1615 Green:5337 Red:24788
Infrared:290 Blue:1249 Green:2445 Red:9543
Infrared:1025 Blue:3677 Green:14466 Red:4153      GREEN
Infrared:1450 Blue:5045 Green:20024 Red:4420
Infrared:1273 Blue:4511 Green:18891 Red:4613
Infrared:1399 Blue:4997 Green:21255 Red:4704
Infrared:307 Blue:1396 Green:8568 Red:4267
Infrared:1990 Blue:24429 Green:13619 Red:4738      BLUE
Infrared:2360 Blue:29953 Green:16392 Red:5220
Infrared:2182 Blue:30106 Green:16288 Red:4845
Infrared:2268 Blue:29393 Green:15981 Red:5101
..
Infrared:11 Blue:44 Green:96 Red:78
Infrared:300 Blue:1338 Green:3858 Red:3058
Infrared:3645 Blue:3889 Green:4642 Red:1590      INFRARED
Infrared:5008 Blue:5440 Green:5978 Red:6051
Infrared:4767 Blue:5201 Green:6806 Red:5969
Infrared:3438 Blue:3553 Green:4990 Red:5394
Infrared:3906 Blue:4774 Green:5223 Red:5375
Infrared:450 Blue:1789 Green:3863 Red:3062
Infrared:449 Blue:1789 Green:3858 Red:3060
Infrared:449 Blue:1788 Green:3859 Red:3060
Prop0 Cog6 ok
```

About sample1;

This word execute delay(2200msec) after executing 'd2200 h84 ColorSensor rd\_ColorSensor'.

ADC is reseted inside 'rd\_ColorSensor'.

But actually color-values don't change if Not delay.

I have no idea about this reason.

Needing more investigating.

Mode:fixed Gain:High Tint:01(1.4msec) IntegralTime:1.4msec  
Each color of full-color-LED is on above ColorSensor.  
And infrared-LED also is on above ColorSensor.

```
Prop0 Cog6 ok
sample2
...
Infrared:56 Blue:67 Green:158 Red:726      RED
Infrared:56 Blue:68 Green:161 Red:739
Infrared:56 Blue:69 Green:167 Red:759
Infrared:56 Blue:70 Green:171 Red:776
```

Infrared:58 Blue:73 Green:183 Red:826	
Infrared:58 Blue:77 Green:195 Red:893	
Infrared:56 Blue:74 Green:190 Red:882	
Infrared:53 Blue:73 Green:187 Red:852	
Infrared:48 Blue:70 Green:174 Red:761	
Infrared:47 Blue:69 Green:173 Red:729	
Infrared:53 Blue:76 Green:188 Red:799	
Infrared:53 Blue:75 Green:192 Red:843	
Infrared:49 Blue:72 Green:189 Red:815	
Infrared:44 Blue:68 Green:169 Red:706	
Infrared:42 Blue:65 Green:161 Red:651	
..	
Infrared:98 Blue:1214 Green:624 Red:157	GREEN
Infrared:97 Blue:1201 Green:619 Red:152	
Infrared:96 Blue:1188 Green:611 Red:155	
Infrared:95 Blue:1177 Green:608 Red:152	
Infrared:94 Blue:1172 Green:605 Red:149	
Infrared:94 Blue:1163 Green:601 Red:154	
Infrared:95 Blue:1167 Green:603 Red:150	
Infrared:95 Blue:1173 Green:606 Red:153	
Infrared:95 Blue:1178 Green:610 Red:153	
Infrared:95 Blue:1176 Green:607 Red:153	
Infrared:95 Blue:1174 Green:608 Red:154	
Infrared:96 Blue:1176 Green:609 Red:150	
Infrared:95 Blue:1178 Green:608 Red:154	
Infrared:95 Blue:1183 Green:611 Red:152	
..	
Infrared:58 Blue:748 Green:397 Red:118	blue
Infrared:59 Blue:746 Green:393 Red:118	
Infrared:59 Blue:748 Green:397 Red:120	
Infrared:60 Blue:753 Green:396 Red:117	
Infrared:59 Blue:754 Green:400 Red:121	
Infrared:59 Blue:761 Green:401 Red:117	
Infrared:60 Blue:765 Green:405 Red:121	
Infrared:60 Blue:768 Green:405 Red:117	
Infrared:61 Blue:768 Green:403 Red:119	
..	
Infrared:6 Blue:15 Green:41 Red:39	
Infrared:259 Blue:258 Green:284 Red:299	Infrared
Infrared:165 Blue:100 Green:124 Red:125	
Infrared:6 Blue:162 Green:58 Red:173	
Infrared:164 Blue:23 Green:175 Red:157	
Infrared:93 Blue:71 Green:63 Red:131	
Infrared:5 Blue:16 Green:44 Red:39	
Prop0 Cog6 ok	