QUANTUM GRAVITY'S SATELLITE DISH ASSEMBLY INSTRUCTIONS

1) Rez the pedestal onto the ground and move it to whatever x,y,z position you want. Write down the x,y,z position for use in step 3 below.

2) Check that the rotation of the pedestal is set to 0, 0, 0. To do this, right mouse click the pedestal, select Edit from the pie menu, then select Rotate (Ctrl), and then select the Object tab. The X, Y, and Z rotations should all be set to 0.

3) Now rezz the satellite dish and move it to the same x,y,z position you wrote down in step 1 above.

NOTES

1) **Warning:** Never delete your Satellite Dish! It is the only copy you have. When you are done using it, take it back into your inventory.

2) **Warning:** Do **NOT** link the pedestal and dish together!! If you do this by accident, it is easier to remove the two pedestal pieces from the link than to try to remove the dish components.

3) The pedestal can be modified and copied so you can make it taller/shorter etc., if desired. Make sure you make a copy of the original before modifying it!

QUANTUM GRAVITY'S SATELLITE DISH OPERATING INSTRUCTIONS

Control of the satellite dish is accomplished through a menu system with two menus or via chat commands.

Most users will probably want to use the menu system since you do not have to remember or type any commands. To access the menu system, left mouse click anywhere on the dish assembly. This will bring up the ELEVATION POSITION menu. This menu is used to set the Elevation angle of the dish. The second menu is accessed by clicking on either of the two menu buttons labeled **>>AZ_Rate**. This brings up the AZIMUTH RATE menu.

The satellite dish can also be controlled via chat commands. This method gives finer control over the position and rate of the dish at the "expense" of having to remember the various commands. The chat commands are given near the end of this note after the two menus are described.

Anytime you change something using the menus (or chat), the user is notified with a chat message stating what happened.

If the menus are not used for about 120 seconds, a timeout (and message) will occur. At this point, the menus will no longer work and you will have to click any of the menu buttons to shut down the menu system. To restart the menus, just left-mouse click on the dish to bring up a fresh set of menus.

If you ever see three white **>>>** to the right of the Ignore button (bottom right side of the menus), this means you have more than one copy of the menus open at the same time. If this happens, the menus may not work properly. You should keep clicking the Ignore button until the **>>>** disappears.

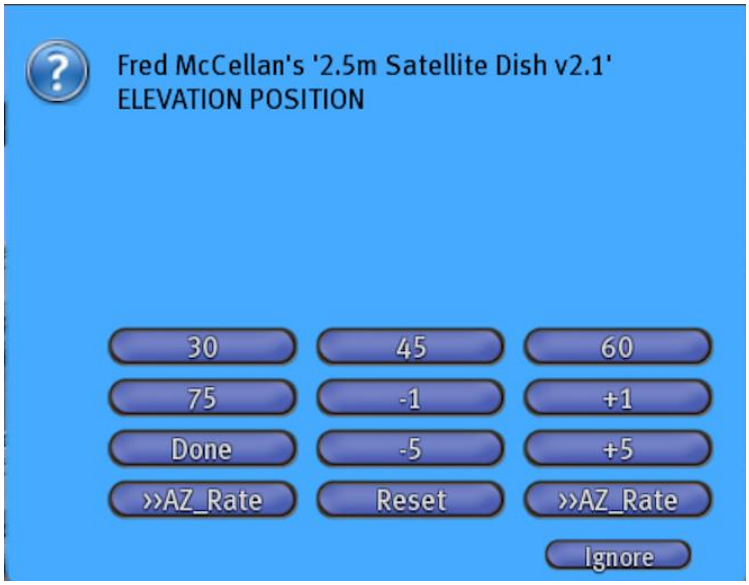
Who Can Control The System?

The satellite dish can be configured to respond only to the owner's commands or to everyone. The default setting is owner only. You can change the setting by editing the SatDish.Config notecard located inside the dish. When OwnerOnly = 1, only the owner has control. When OwnerOnly = 0, everyone has access.

When in owner only mode, only the owner can control the dish via touch menus or chat commands. In owner only mode, only the owner will see the status messages from the dish. When OwnerOnly is set to 0, anyone can control the dish via the touch menus or chat commands. In this case, anyone within 20 meters of the dish will be able to see the dish status messages.

Elevation Position Menu

A typical ELEVATION POSITION menu (shown below) is brought up by touching anywhere on the reflector or the hub on the back of the reflector. The elevation position menu is used to set the elevation angle of the satellite dish in degrees. An elevation angle of zero degrees is when the dish is pointed at the horizon. An elevation angle of 90 degrees corresponds to the dish pointing straight up (zenith). The elevation angle is limited to a range of -10 degrees up to 90 degrees.



The following table contains a description of each button on the ELEVATION POSITION menu.

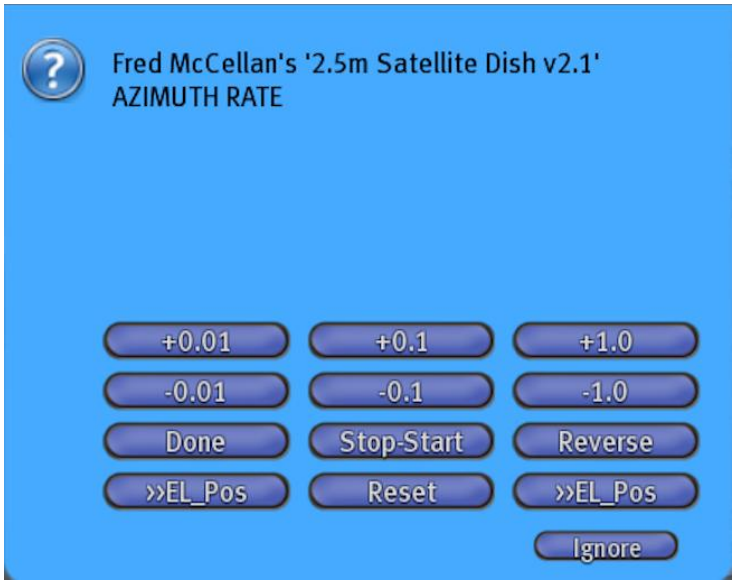
Elevation Position Menu Buttons & Descriptions

Button	Description
30	Sets the elevation angle to 30 degrees - See Note 1
45	Sets the elevation angle to 45 degrees - See Note 1
60	Sets the elevation angle to 60 degrees - See Note 1
75	Sets the elevation angle to 75 degrees - See Note 1
-1	Subtracts 1 degree from the current elevation angle - See Note 1
+1	Adds 1 degree to the current elevation angle - See Note 1
-5	Subtracts 5 degrees from the current elevation angle - See Note 1
+5	Adds 5 degrees to the current elevation angle - See Note 1
Done	Exits the menu system
>>AZ_Rate	Either of the two buttons jump to the AZIMUTH RATE menu
Reset	Sets the azimuth and elevation angles to zero and sets the previously set (remembered) azimuth rate to zero.

Note 1: The elevation control buttons also set the azimuth angle to zero (to north) and temporarily stops the rotation of the azimuth axis. To resume rotating at the previously set azimuth rate, select the AZ_Rate menu and click on the Stop-Start button. This will restart the AZ motion at the previous rate.

Azimuth Rate Menu

A typical AZIMUTH RATE menu (shown below) is brought up by touching anywhere on the reflector, and then clicking on either of the **>>AZ_Rate** buttons on the ELEVATION POSITION menu. This menu is used to control how fast the dish rotates in azimuth (AZ). A plus azimuth rotation is defined as clockwise when looking down on the satellite dish. Likewise, a negative rotation is counter-clockwise.



The top six buttons of the azimuth menu allow you to increase/decrease the azimuth rotation rate by the incremental amount shown on the button. These top six buttons have default values that can be overridden by changing the SatDish.Config notecard contained inside the dish. If the note card is missing, misnamed, or contains an error, a set of default (pre-programmed) rates will be used. Before changing the SatDish.Config note card, make a copy of the original by dragging it over to your inventory.

NOTE: If you change the azimuth rates in the SatDish.Config note card, make sure you do NOT use any of the exact Elevation Position commands such as +1, -1, +5, -5, 30, 45, 60, or 75. An easy way to do this is to ALWAYS use a decimal point in the azimuth rate commands that you put in the note card. For example, +1.0 or 1.0 or +1.00 will work for a custom Azimuth rate, but +1 should NOT be used because it is a standard Elevation command.

All azimuth rates are in radians/second (1 radian/second is about 57.3 degrees/second). The first six descriptions below are for the pre-programmed default rates. The Done, Stop-Start, and Reverse commands are always there even if you change the default rates.

Azimuth Rate Menu Buttons & Descriptions

Button **Description**

+0.01 This button adds 0.01 to the current rate.

+0.1 This button adds 0.1 to the current rate.

+1.0 This button adds 1.0 to the current rate.

Button	Description
-0.01	This button subtracts 0.01 from the current rate.
-0.1	This button subtracts 0.1 from the current rate.
-1.0	This button subtracts 1.0 from the current rate.
Done	Exits the menu system
Stop-Start	If the AZ axis is rotating, this button temporarily stops the rotation. If the AZ axis is stopped, this button re-starts the AZ axis rotating at the last rate it was going.
Reverse	If the AZ axis if rotating, this button immediately reverses the direction of the AZ rotation. If the AZ axis is temporarily stopped, the reverse button reverses the direction of the "remembered" last AZ rate.

Typical Operating Sequence Using the Menus

1) Set the desired elevation angle using the ELEVATION POSITION menu.
2) Set the desired azimuth rotation rate using the AZIMUTH RATE menu.

Temporarily Stop the Azimuth Rotation

To temporarily pause the azimuth rotation, select the AZIMUTH RATE menu then click the **Stop-Start** button. To restart motion at the original rate, click the **Stop-Start** button again. Note: If you click on the other rate increase/decrease buttons (or Reset button) while stopped, the remembered rate will be lost.

To Change the Elevation Angle Without Changing the Azimuth Rate

1) Bring up the ELEVATION POSITION menu, and change the elevation angle as desired. This will temporarily stop the azimuth rotation. Do NOT click the Reset button!

2) Now, bring up the AZIMUTH ROTATION menu and click the **Stop-Start** button. The dish will resume rotating at the rate it had before the elevation angle was changed.

CHAT SYSTEM DESCRIPTION

The chat system allows you to control the satellite dish by typing commands into the Local Chat box. The satellite dish only responds to commands on the proper channel. The default channel is 33, however, you can change the channel number in the SatDish.Config notecard located inside the dish. You may want to change the channel if you have another device that already uses channel 33, or if you have two or more satellite dishes located close to each other on your property.

Assuming you are using the default channel (33), all chat commands start with /33 followed by a space (or spaces) and then the command. If you changed the SatDish.Config notecard to a different channel

then all commands will start with / followed by the channel number you selected. For example, if you changed the notecard to use channel 7 then you would start each chat command with /7. One or more spaces are always required after the channel number. There should NOT be any spaces between the / and the channel number. Spaces at the beginning of the command are ignored. Also, all alpha commands are not sensitive to case. So, for example, you can use /33 RESET, /33 reset, or /33 ReSEt and they will all work the same.

Note: When using the chat system to command the dish, you must be within 20 meters of the satellite dish. You can extend the range of your commands to about 100 meters by "shouting" them. To shout a command, hit Ctrl-ENTER after the command instead of the normal ENTER.

Chat System Commands and Descriptions

Chat Command	Description
/33 az=x	Sets azimuth rate to x where x is any signed number from -100 to +100. Note that this is an actual rate of x, not a rate change.
	Example 1: **/33 az=-2.1553** sets the azimuth rate to -2.1553
	Example 2: **/33 az = .049** sets the azimuth rate to +0.049
	Example 3: **/33az =.049** is INVALID (need a space after the 33)
	Example 4: **/ 33 az = 1.02** is INVALID (contains a space after the /)
/33 el=y	Sets the elevation position to y degrees, where y is between -10.0 and +90.0 degrees.
	Example 1: **/33 el =22.389** sets the elevation angle to 22.389 degrees
	Example 2: **/33 el= 31.9** sets the elevation angle to 31.9 degrees
	Example 3: **/33 el= -5.7** sets the elevation angle to -5.7 degrees

Chat Command	Description
/33 30	Sets EL position to 30 degrees
/33 45	Sets EL position to 45 degrees
/33 60	Sets EL position to 30 degrees
/33 75	Sets EL position to 45 degrees
/33 -1	Subtracts 1 degree from the EL position
/33 +1	Adds 1 degree to the EL position
/33 1	Adds 1 degree to the EL position
/33 -5	Subtracts 5 degrees from the EL position
/33 +5	Adds 5 degrees to the EL position
/33 5	Adds 5 degrees to the EL position (same as above)
/33 reset	Sets the azimuth and elevation angles to zero and sets the previously set (remembered) azimuth rate to zero.

The following six chat commands assume you have NOT changed the default azimuth rates in the SatDish.Config note card. If you HAVE changed them, then the commands to be used in chat MUST match the exact commands you put in the notecard. Plus signs, minus signs, and decimal points must match exactly what you put in the notecard.

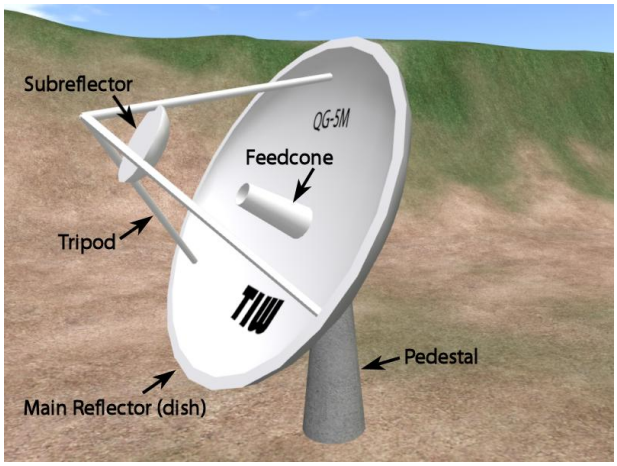
Chat Command	Description
/33 +0.01	This command adds 0.01 to the current rate
/33 +0.1	This command adds 0.1 to the current rate
/33 +1.0	This command adds 1.0 to the current rate
/33 -0.01	This command subtracts 0.01 from the current rate
/33 -0.1	This command subtracts 0.1 from the current rate
/33 -1.0	This command subtracts 1.0 from the current rate
/33 Stop-Start	If rotating, this command temporarily stops the AZ rotation. If stopped, this command re-starts the AZ axis rotating at the last rate it was going.
/33 ss	Exactly the same as using Stop-Start, but easier to type!

Chat Command	Description
/33 stop	Temporarily stops the rotation of AZ axis if it is moving, otherwise does nothing.
/33 start	If stopped, this restarts rotation of azimuth axis, otherwise does nothing
/33 Reverse	If the AZ axis if rotating, this command immediately reverses the direction of the rotation. If the AZ axis is temporarily stopped, the reverse command reverses the direction of the "remembered" last AZ rate.
/33 rev	Exactly the same as Reverse above except easier to type

IN CASE OF A PROBLEM

On rare occasions it may be necessary to reset the script running inside the satellite dish. To do this, right mouse click on the dish then select OPEN in the "pie chart". Now right mouse click on the script named **Sat Dish Menus v2.1** and select OPEN. Now click the Reset button for the script in the lower right corner. Also make sure the "Running" box is checked in the lower left corner.

Names of Satellite Dish Components



DISH LIGHT – USERS GUIDE

The dish is equipped with a set of lights located in each tripod leg. The lights themselves cannot be seen but they illuminate the reflector and the subreflector. They can be configured and turned on/off via a set of menus and via chat commands as described in this guide.

Note: You can only see the effects of the dish lights if you have your SL Viewer Preferences set properly. Under Lightning Detail you must have the box "Nearby local lights" checked. You can verify this by going to your menus and select: Edit then Preferences the Graphics, then check the Custom box to see if you have the "Nearby local lights" box checked.

There are Configuration settings for:

* Light color
* Brightness
* Radius

The Dish Light script is derived from CG Facelight by Cognitive Gears which is released as an open-source project, and may be freely used and modified based on terms of the license agreement.

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http://www.perlfoundation.org/artistic_license_2_0

All documentation, textures, and other resources licensed under the Creative Commons Attribution 3.0 United States license: http://creativecommons.org/licenses/by/3.0/us/

Dish Light was added to ver 2.1 (and later) of the Satellite Dishes sold by Fred McCellan. There was no price increase of the ver 2.1 dishes, hence dish light is being provided at no charge to buyers of the satellite dishes.

Dish Light Chat & Touch Controls

A user can use text chat on channel 33 to control the dish lights. All commands are prefixed with "dl" (or "dishlight") and the command name. Possible commands are listed below. As an example, typing: **/33 dl on** will turn the dishlight system on.

Note: If you have other devices nearby that already use channel 33 you can change it by editing the dishlight_controller script located inside the top tripod leg at the front of the dish. The line in the script (located near the top) to change is: **integer gOwnerListenPort = 33;**

Just change the 33 to the channel that you want to use. Of course if you change the channel, then you need to also change the /33 in the examples below to the new channel number. If you change the default channel, also change it in the script located inside the subreflector and upper tripod leg.

/33 dl on – turns on the dishlight, or alternatively: **/33 dishlight on** (all commands can use dishlight instead of dl)

/33 dl off – turns off the dishlight

Note: You can also touch the subreflector located in front of the dish to turn on/off the dishlights. You must edit the script inside the subreflector if you need to change the default channel number of 33.

/33 dl menu – displays the configuration menu (see pictures on next page)

Note: You can also touch the upper tripod leg to bring up the menu for on, off, brightness, radius, color, and help. If you need to change the default channel of 33, then you need to edit the dishlight_controller script inside the upper tripod leg.

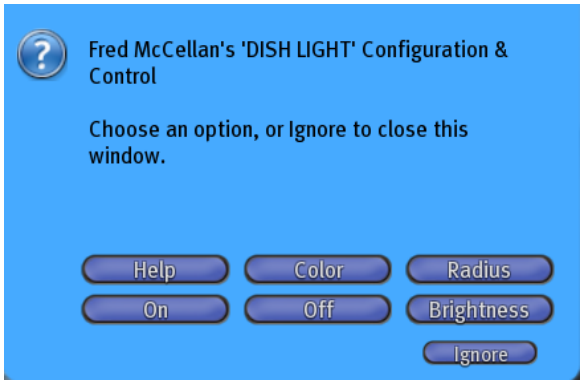
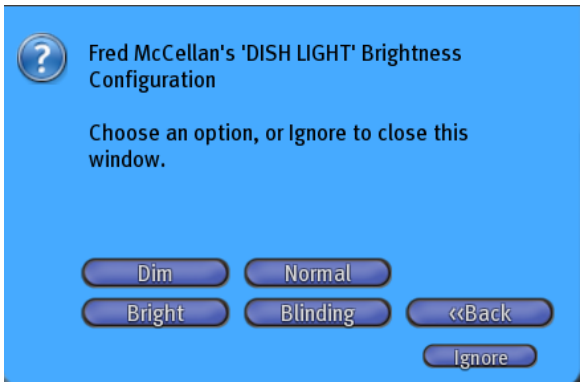
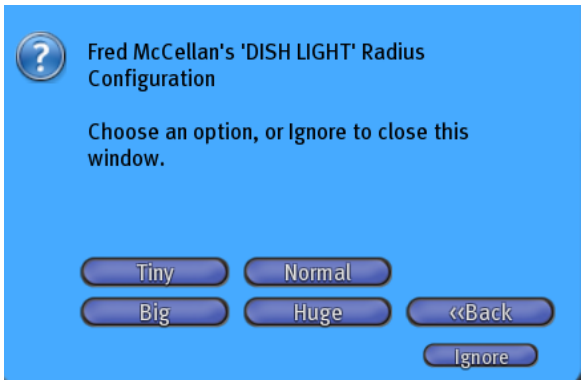
/33 dl brightness [dim|normal|bright|blinding] – Set how bright the lights shine,
example: **/33 dl brightness dim**

/33 dl radius [tiny|normal|big|huge] – Sets the distance that the lights shine (and hence also changes the effective brightness), example: **/33 dl radius big**

/33 dl color [white|red|blue|orange|pink|yellow|brown|green|purple] – Changes color of the light, example: **/33 dl color red**

/33 dl help - offers to give you a copy of this note card

DISH LIGHT MAIN MENU



DISH LIGHT SUBMENUS