

FD-ST1

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Schematic & Parts List: PIC16F688 Satellite Tracker & Rotor Controller

Program Setup for "Nova for Windows" & "SatPC": (G5500 Rotator)

Nova For Windows:

**Open** Nova's **Setup** menu. Select "Antenna Rotator" Within "Setup Antenna Rotator" Menu go to "Interface" Then to "Rotator Interface". Select "EasyComm I".

Select Serial Port, delay & Pacing as required. Rotor parameters for AZ & EL may be entered on right hand side menu. Press OK to exit rotor interface setup.

## SatPC Setup:

To properly interface ST1 to SatPC program, please follow followings steps. ST1 requires "ServerEasyComm I" and SAEBRTrackBox selections to interface with SatPC.

Step 1.



# Step 2.

Select <b>SAEBRTrackBox</b> in the	Rotor Setup	
	For hints how to setup automatic rotor control open menu " Rotor interface/controller:	?/Hints [Rotor]"
Set the appropriate serial port	SAEBRTrackBox	Search
Set the Turning point azim. rotor to N (north)	Settings: Port (1 - 4, only IF-100, F0DTrack, RifPC) Delay (only IF-100, F0DTrack, RifPC) Turning point of azim. rotor (S or N) Minimum elevation	2
Set Max. elevation to 180 degr.	Horizontal antenna correction 0 Vertical antenna correction 0	Help
Set Update antenna positions: in time intervals	Port_address: \$0278 Optional settings:	Store
Set Time interval (sec.) to appropriate interval to suite your needs	Update antenna positions: in time intervals at sat. position change Update antenna positions: Max. elevation 90 degr. 180 degr.	Azimut rotor © 360 degr. © 450 degr.
	Ime interval (sec.) Pos. change (deg.)   15 5   Azimuth angle: 6   gain related	Optional settings: OK Store

# Step 3.

Click store in both places. A window should come up stating that the changes have been stored and that the software needs to be re-booted for the changes to take place. **Close and then re-start SatPC32.** 

#### Step 4.

After you restart SatPC32, your will get the <b>EasyComm</b> icon at the bottom of the screen in the	SatPC32 [Standard] EasyComm
Task Bar	

## Step 5.

Click on the **EasyComm** icon on the task bar and you should get this window:

ServerEasyCom	m1	
Azimuth:	Minimize	man.Input
Elevation:	Setup	Quit
(C) DK1TB 2005	Help	

#### Step 6.

Click on Setup and you will get this window:

Change the Port setting to the number of the port being used by the USB port as above. Click Save. Close and restart SatPC32 again and you should be all set.



#### Step 7.

Turn on the rotor controller by left clicking on the "R" letter (stands for rotor) so that a + sign appears. Nothing will happen until the satellite is within range. You might consider testing the setup by clicking on ROTOR in the top command line and either forcing the rotors to park or command a specific AZ/EL.

R+	<b>C</b> -	A-	Ų	TØ	L	CW-
M+	Z1	G-	<b>S</b> -	D-	₩2	2D

### 73s Dinesh Gajjar

For project details, please visit <u>http://www.foxdelta.com</u>