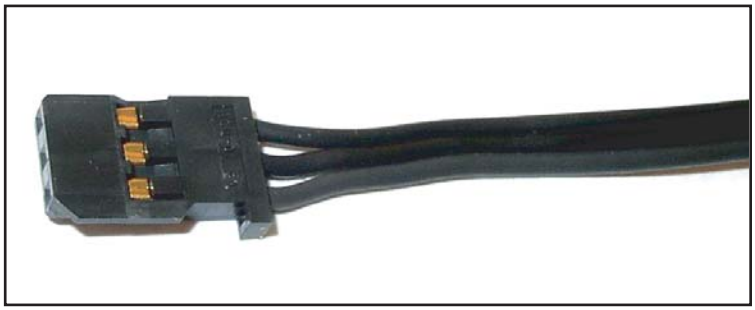
RC Template Program:

This new template download will assist in using a 4 channel R/C receiver and transmitter with the Robonova. The transmitter used during testing was the Optic 6 on 72MHz and the Micro 05S receiver. Any four channel system can be used in place of the one used in testing. Please note that if you reside in the US, a 75MHz system will be required according to the FCC regulations.

The receiver is small enough to fit inside the chest cavity of the Robonova-1.

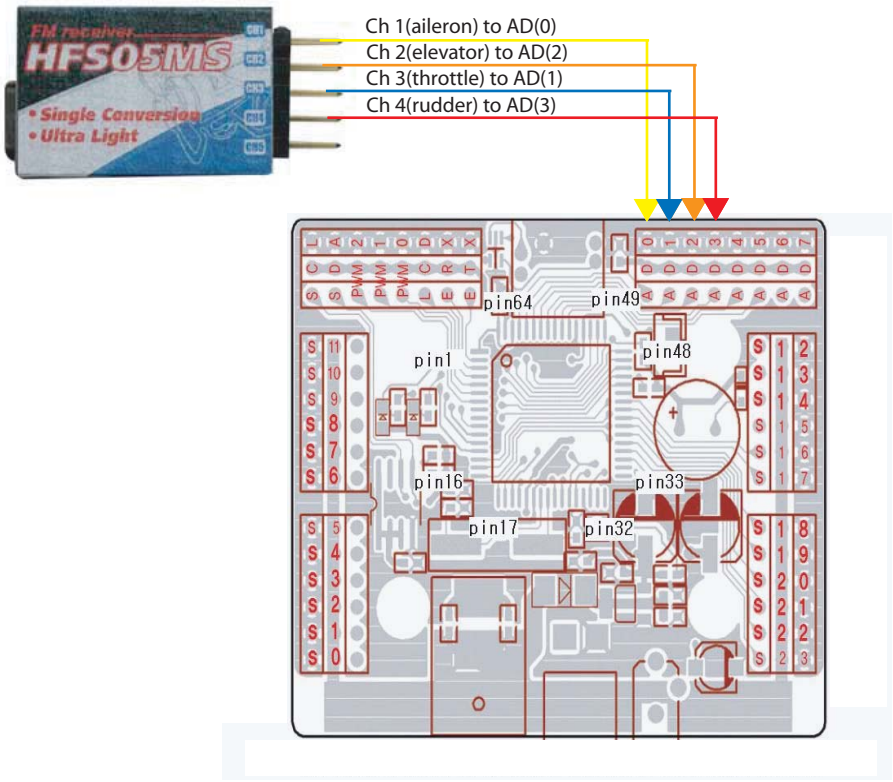
To connect the receiver to the MR-C3024 controller board, you will have to either buy or make four connectors with a male plastic plug at each end. The are same ends that are on the servos. These plugs will connect the receiver ports to the A/D ports of the controller board.



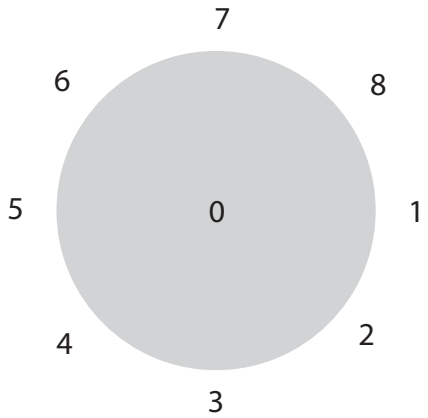
Male plastic pin plug

Use this table and picture to assist in plugging the connectors into the receiver and controller.

RX Port/CH	AD Port
1 Aileron	0
2 Elevator	2
3 Throttle	1
4 Rudder	3

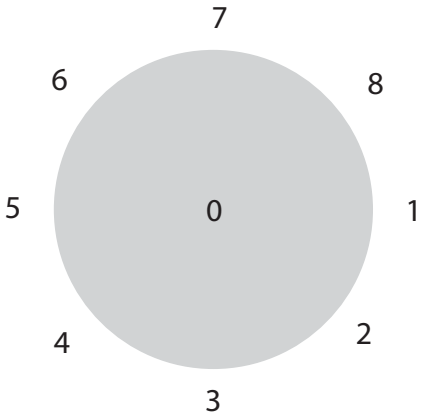


The transmitter gimbals have eight usable points each. Within the code, these points are assigned a number that starts with one and going clockwise ends at eight. Because of this "clocking", changes to the key assignments is extremly easy. Refer to the picture for the stick posistions and the assigned value.



X1

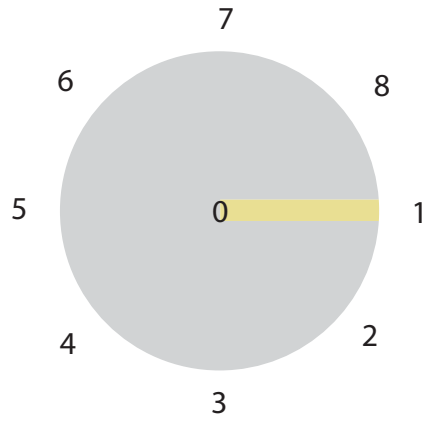
Left Gimbal



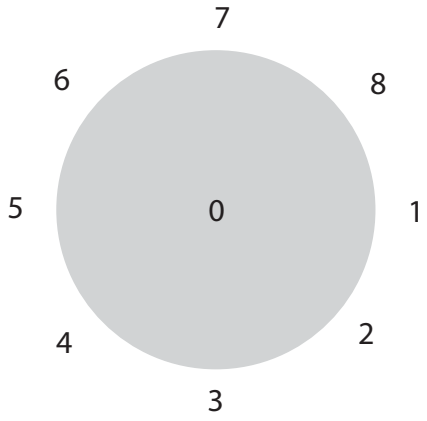
X10

Right Gimbal

As the picture on the previous page shows, each gimbal is clocked in the same maner. The difference is that the left gimbal is clocked times one and the right times ten. For example, if the left gimbal stick is moved to position one and the right is centered the key value is one.

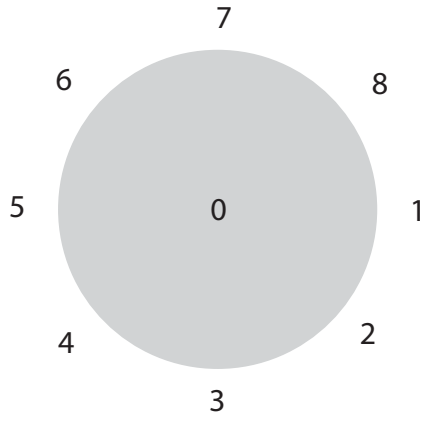


X1



X10

If the right gimbal stick is moved to position one and the left is centered, then the key value is ten.



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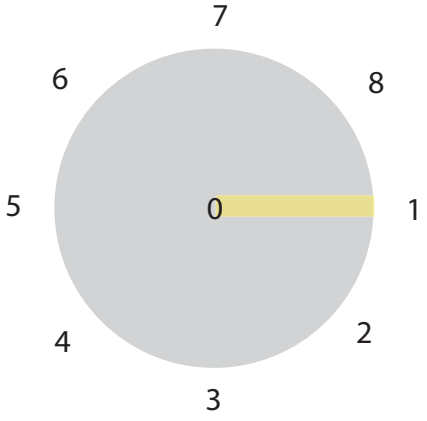

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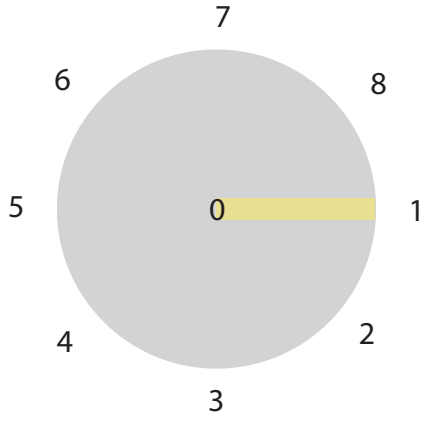
If the left gimbal is at position one and the right is at position one, then the two are added together. The key value is now eleven.



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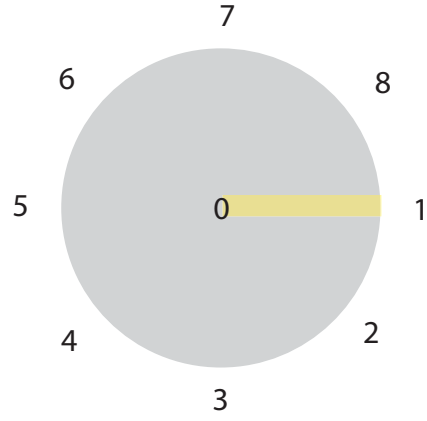

X10

Since there are no nines in this clocking system, any key codes with the number nine are unused.

The RC Template program already has the original motions assigned to various keys. If you would like to move them simply cut and paste the GOSUB command to a different key of your own chossing.

Key #	Motion	Key #	Motion
1	Step right	30	Roll Backward
3	Walk backward	33	Forward Jab
5	Step left	37	Standup from front
6	Turn left	40	Sit (1)/Stand(2)
7	Walk Forward	50	Left Cartwheel
8	Turn right	53	Pick up/throw (New)
10	Right Cartwheel	57	Left attack
13	Push-ups (New)	60	Headstand
17	Right attack	67	Left forward attack
20	Kick	70	Roll forward
22	Bow	73	Standup from back
23	Raise Arms	77	Fast walk
24	Sit/Standup	80	Flying move
25	Sit/Raise Arms	87	Right forward attack
26	Raise Leg	88	Standby/Ready
27	Toe Touch		

Now its up to you to create more motions and assign them to keys.