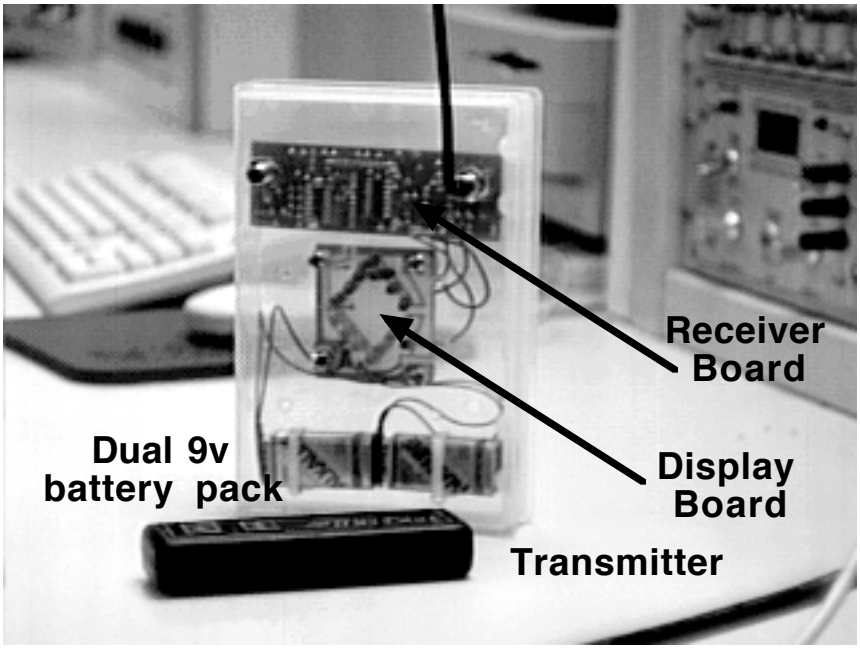
# RF Remote control

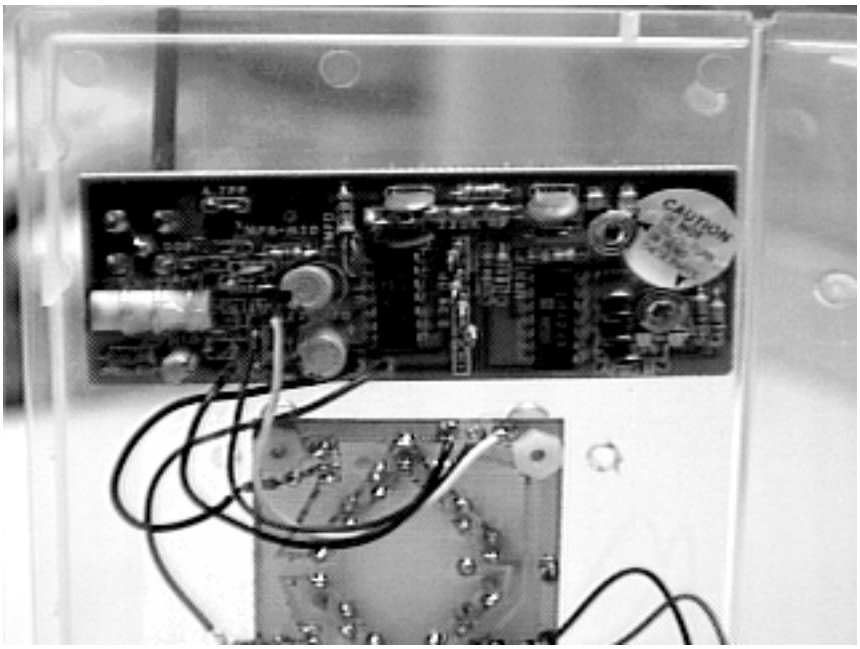
**Students will be assembling a RF (Radio Frequency) remote control system. The system consists of two surplus preassembled RF modules, a transmitter and a receiver. The system will activate two arrays of LED's in the receiver subsystem. The final circuit will be packaged in a video tape storage box.**




**Completed Unit consists of a Display Board, receiver, and battery pack mounted in a clear plastic video tape storage box. The receiver is mounted in a manner that permits installation of the antenna.**

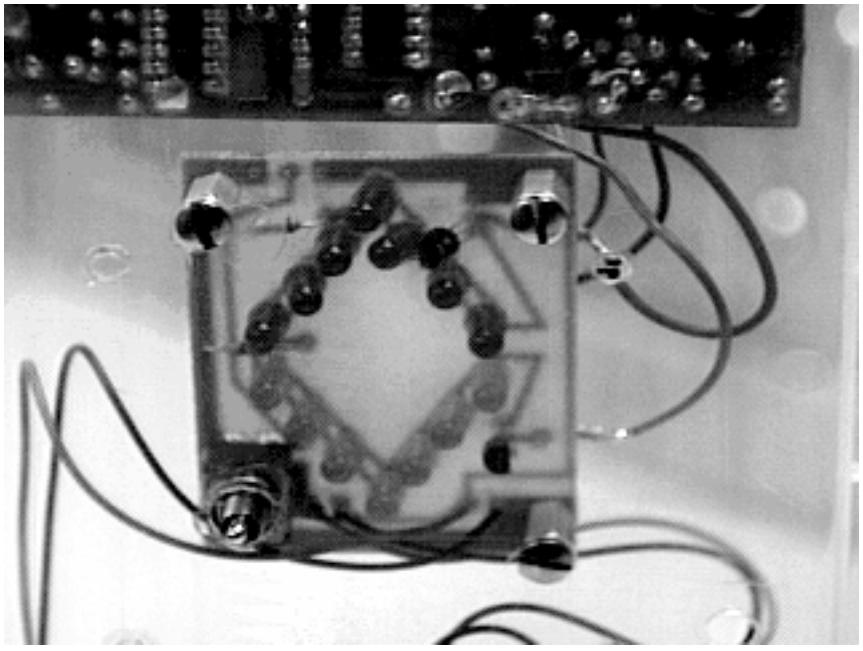
**Original equipment Transmitter manufactured by Houston Satellite Systems appears to be a remote control upgrade system for a home satellite receiver system.**

**The transmitter has an UP and a DOWN button. In this design, we have arranged LED's on a circuit board to from an UP ARROW and a DOWN arrow . The transmitter functions activate the corresponding arrows.**



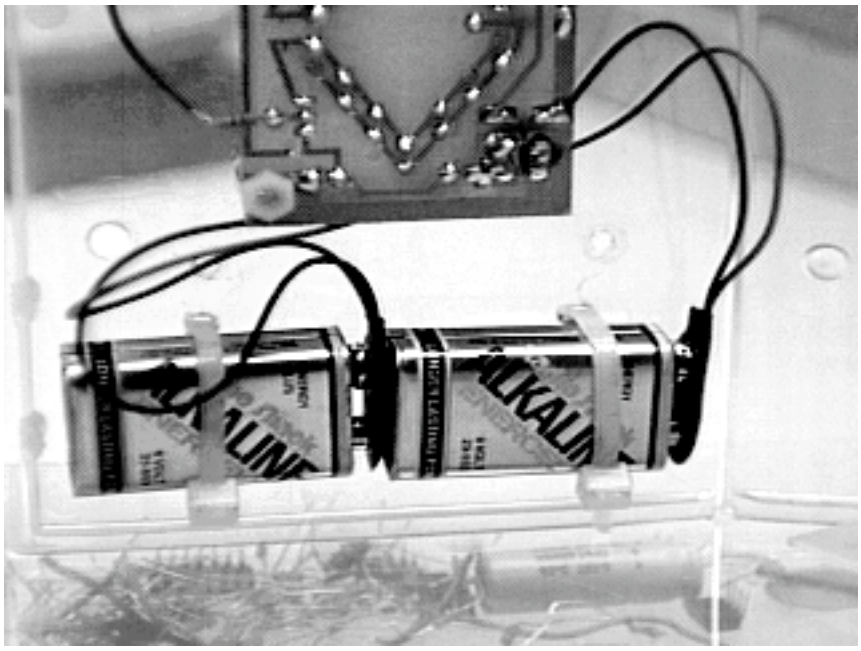
**The receiver board is mounted above the display. Tuned circuits on the board are very sensitive. Try not to alter the position of any components.**

**Color coded wires from the receiver are soldered to the assembled display board.**

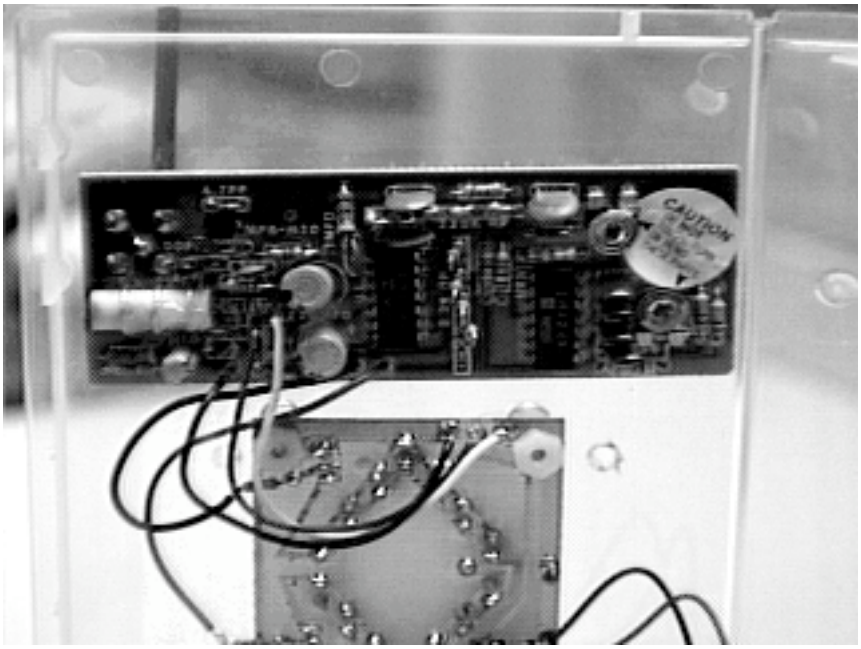


**The Display printed circuit board contains all of the mounted LEDs, driver transistors and resistors along with a system power switch.**

**The display board is mounted in the case with aluminum standoffs.**

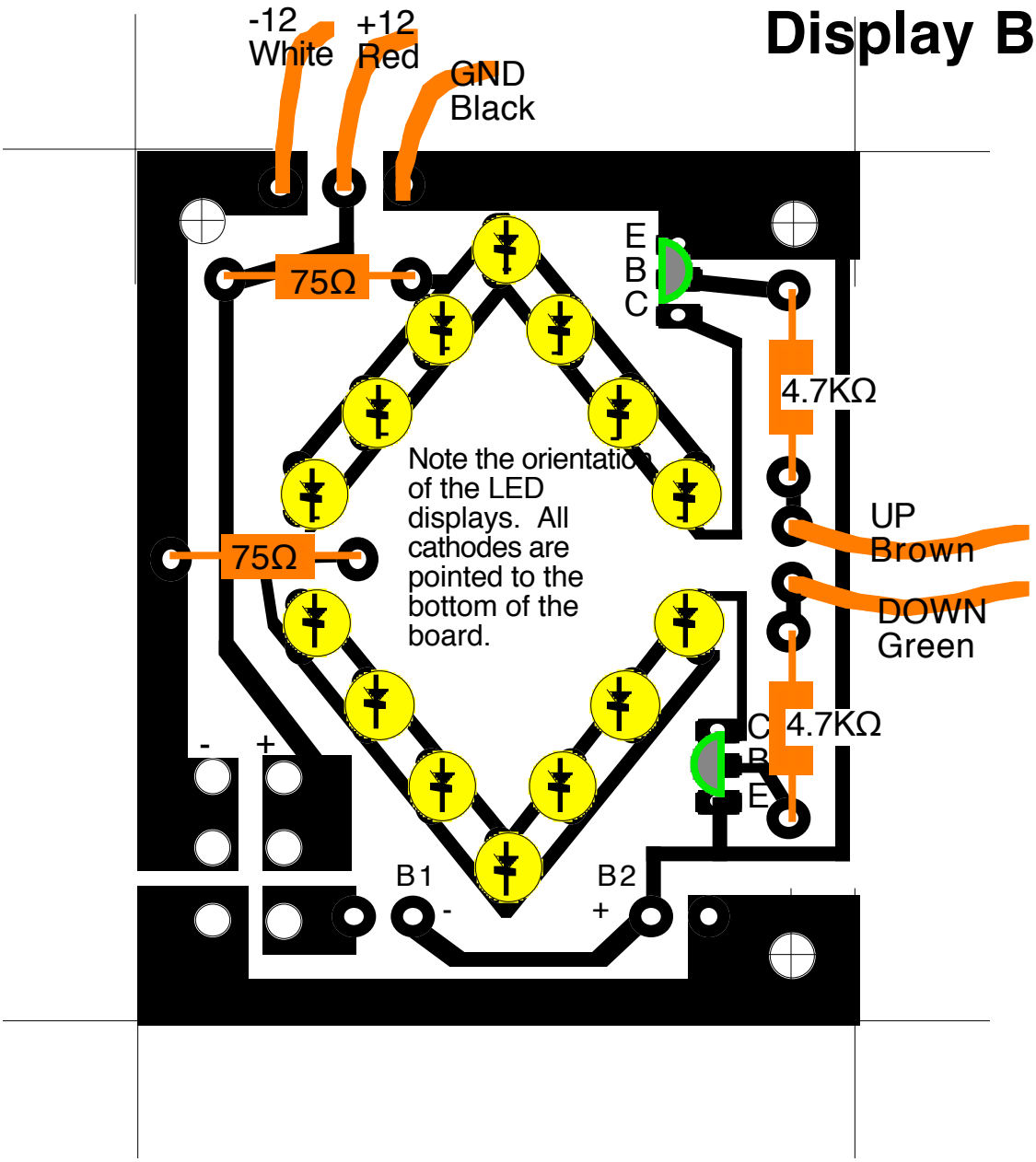


**The battery pack consists of twin 9 volt batteries providing a bipolar power source for the receiver and display.**



**After the display board is assembled and tested attache the hookup wires from the receiver to the display board. Finally attach the battery pack to the display board.**

# Display Board




**Assembly of the Display board consists of mounting up the LEDs and other components.**

**After the Display board is assembled it will be tested. This procedure needs to be completed in order to make certain that the display is operational before connection is made to the receiver. Your lab instructor will have details for testing the display.**