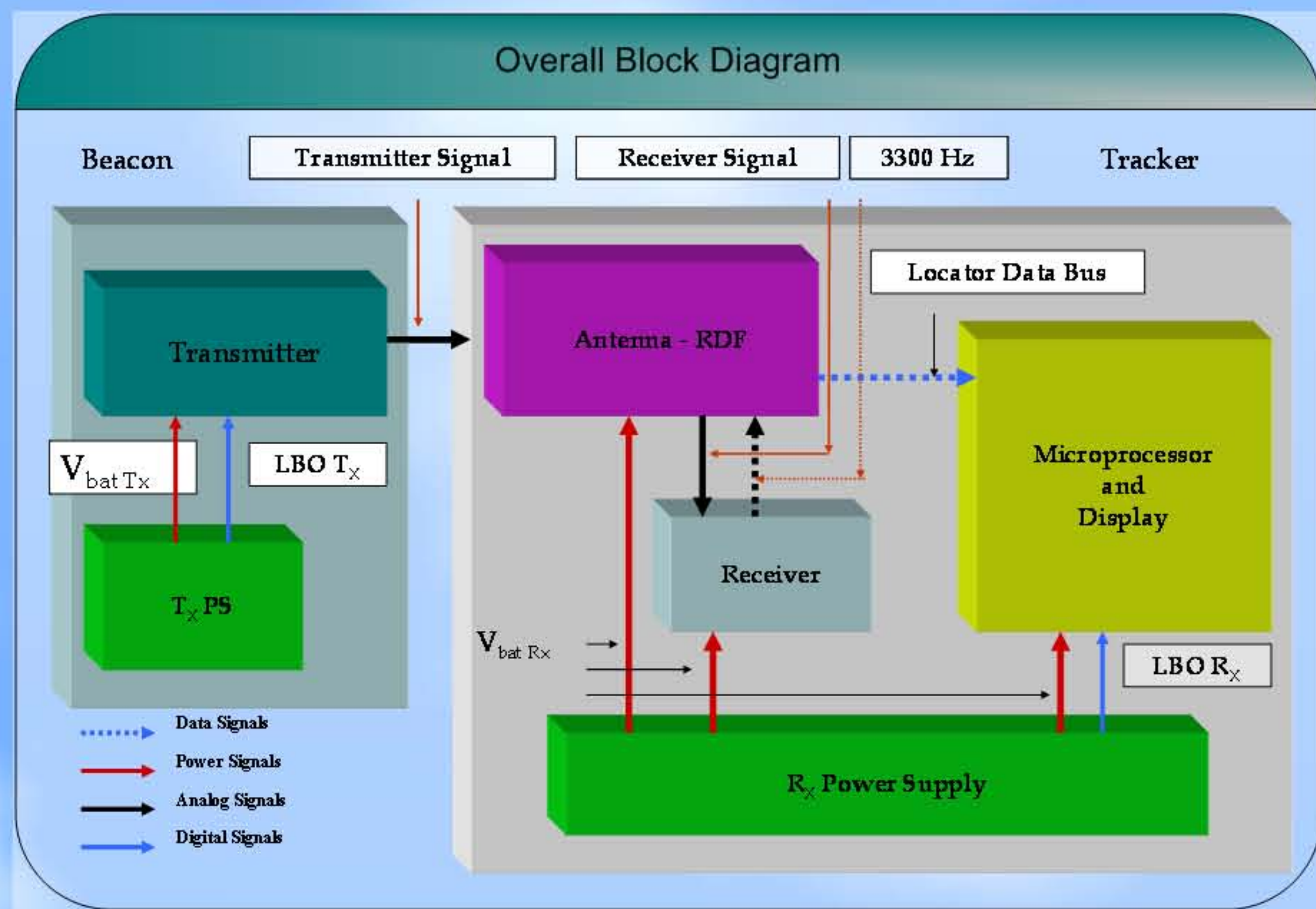


# RADIO DIRECTION FINDING SYSTEM FOR SMALL HOBBY CRAFTS

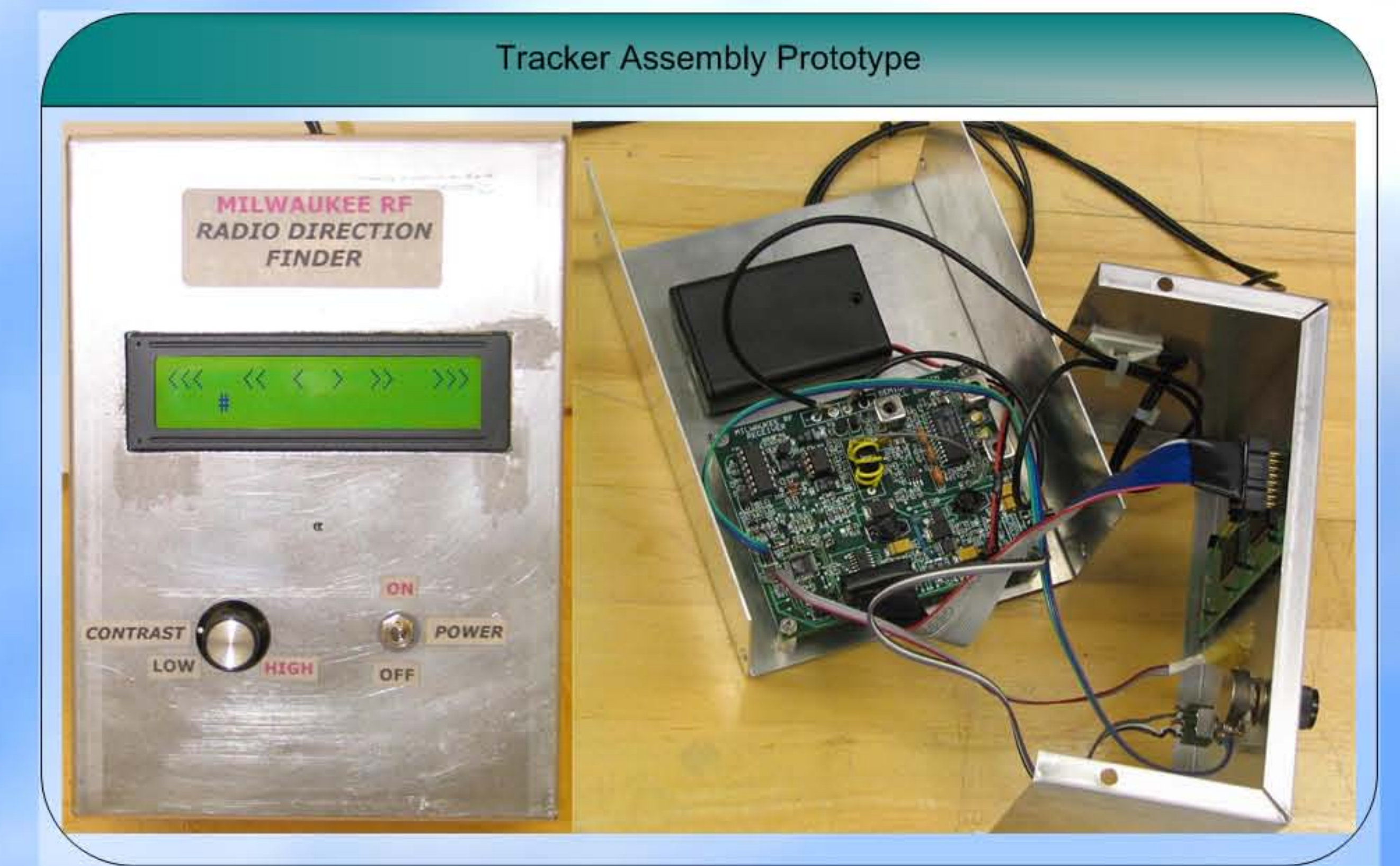
David Worden and Joshua Zagorski  
University of Wisconsin-Milwaukee  
Electrical Engineering



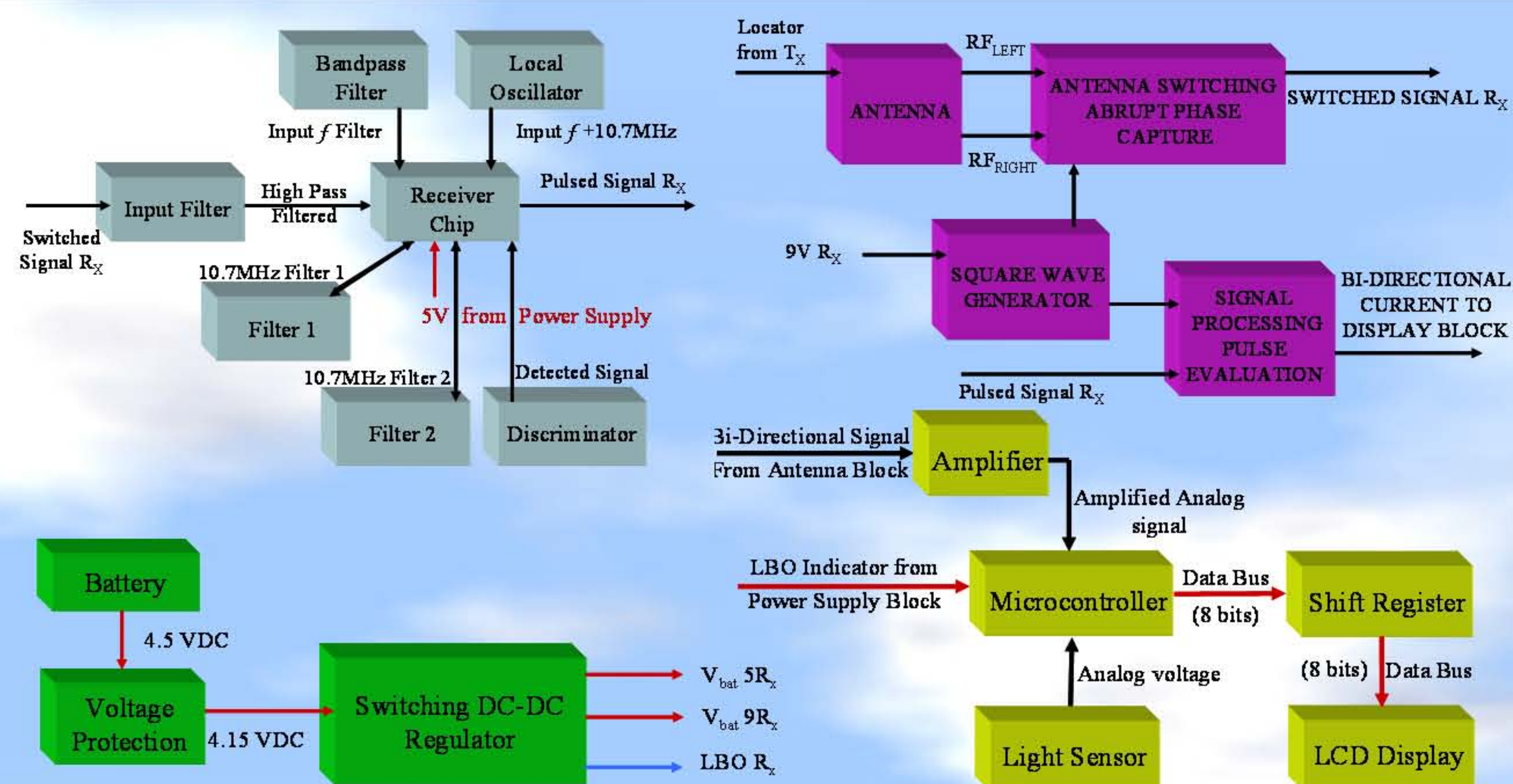
## Abstract

The "Radio Direction Finding System" was developed by Milwaukee RF in response to a demand by radio control airplane and model rocket hobbyists for a way to locate their downed aircraft in case visual tracking proved unsuitable.

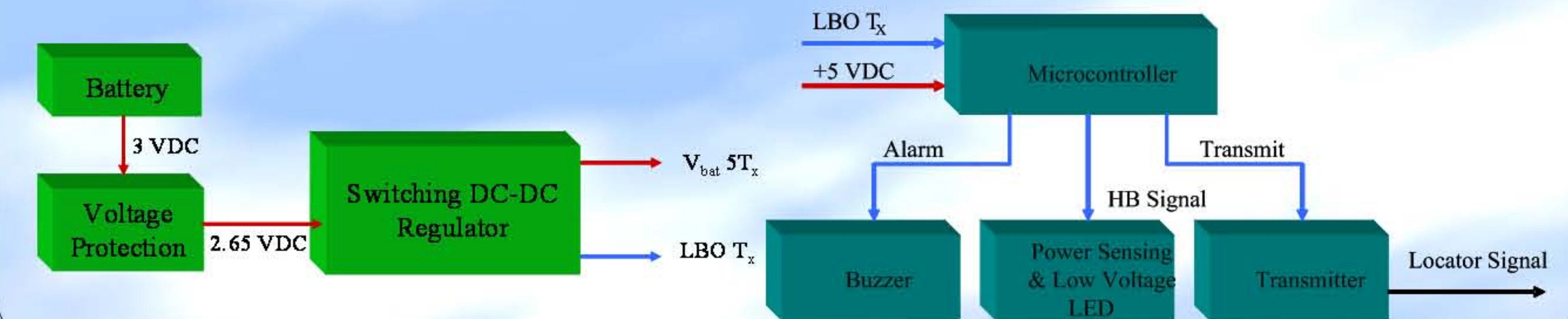
The "Radio Direction Finding System" consists of a Beacon module placed in the aircraft, and a Tracker module held and operated by the user. Rugged construction, 8 hour battery life, and the ability to locate within the 1 km flight range of many hobby aircraft, make this an attractive product to hobbyists in the 7 to 70 age group worldwide.



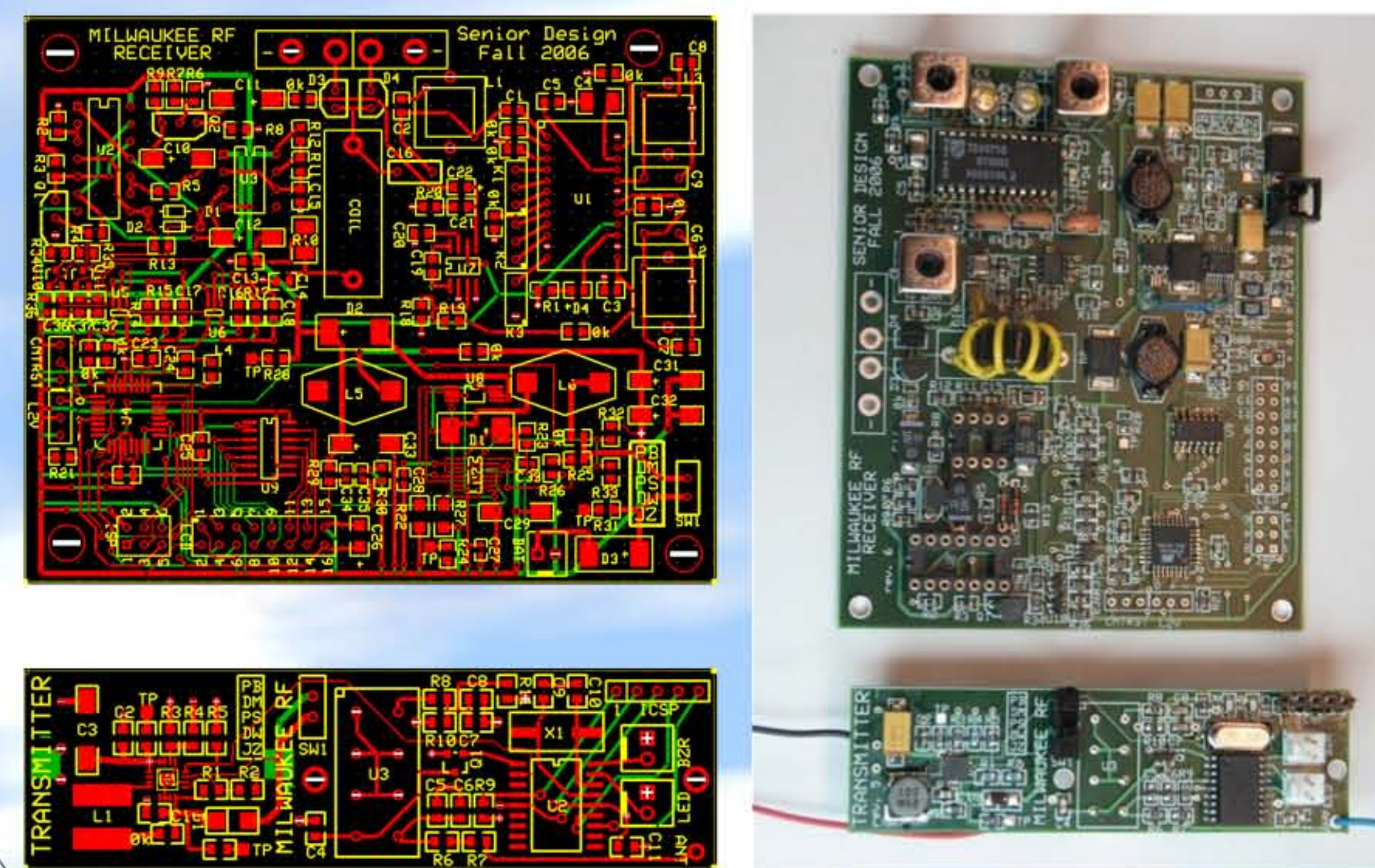
## Detailed Tracker Block Diagrams



## Detailed Beacon Block Diagrams



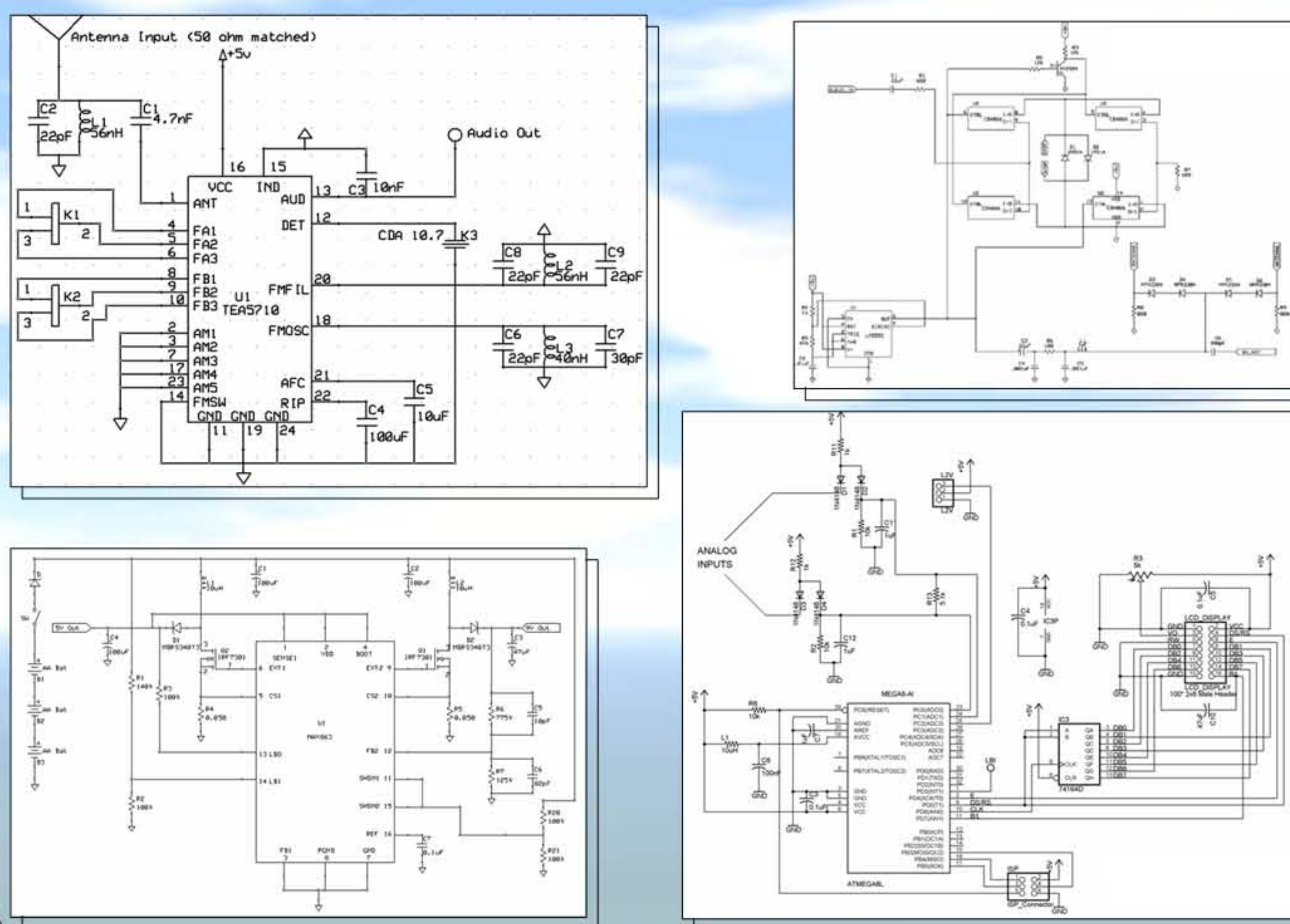
## Printed Circuit Board



## Antenna Assembly Prototype



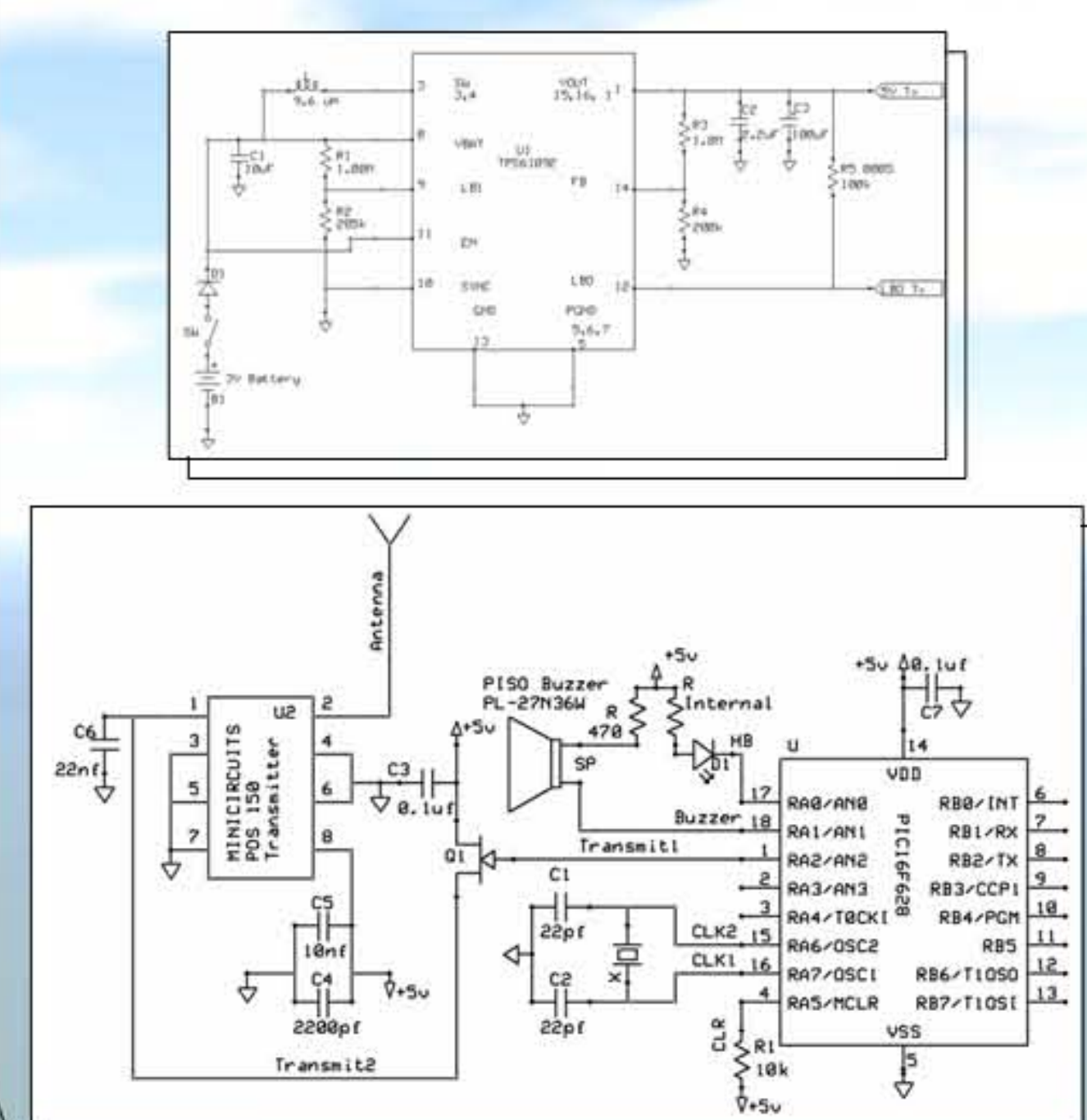
## Detailed Tracker Schematics



## Acknowledgments

We would like to thank:  
Dave McClanahan  
Eaton Corporation  
General Electric

## Detailed Beacon Schematics



## Capstone Design Team

