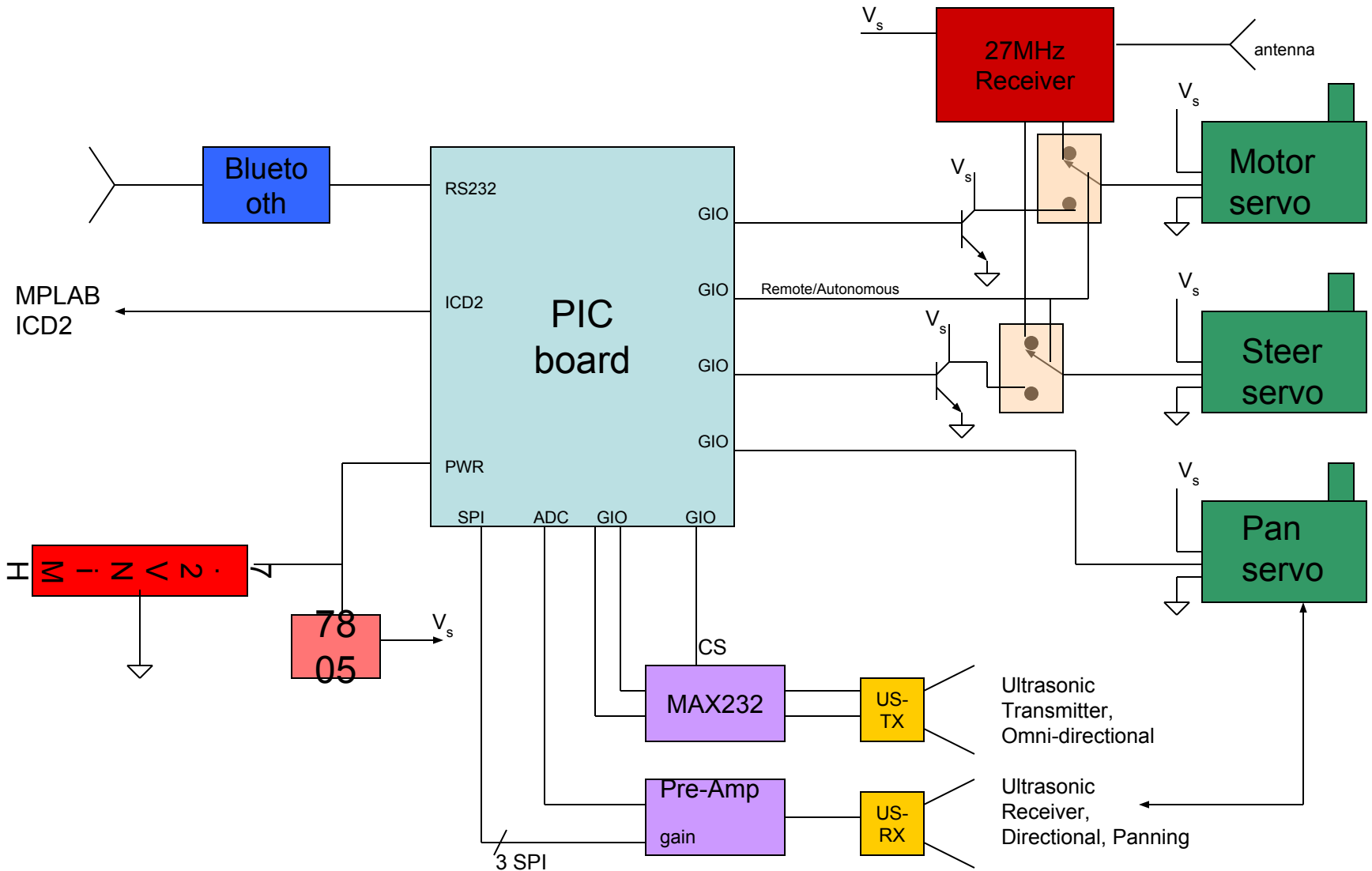
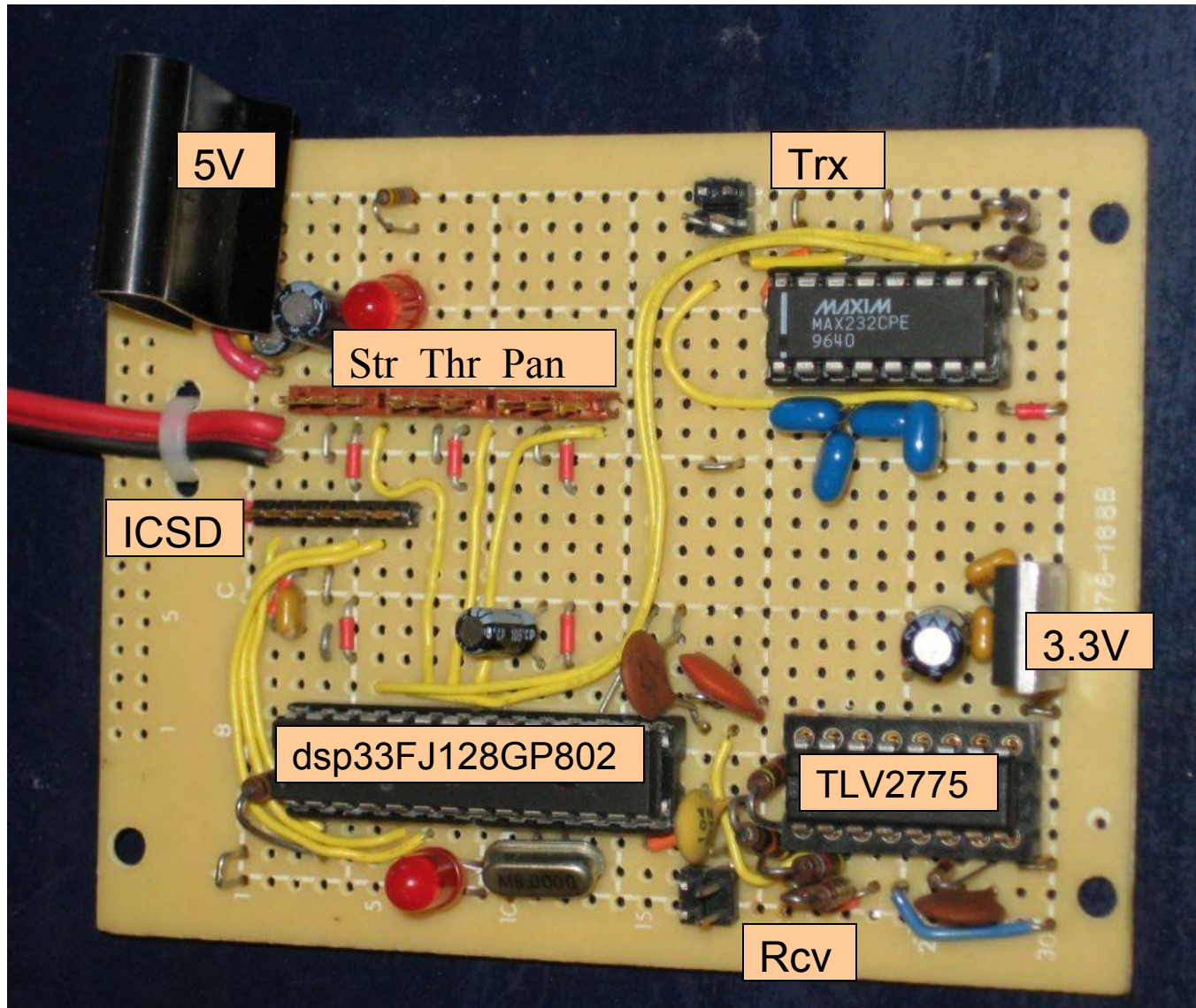


# Pal System Block Diagram



# Pal Rover1 Board



# Pal Timer Allocation

- **Timer 1: 40KHz Ultrasonic Signal**
  - Called every 12.5uS, each phase of sq wave
  - Enabled by Timer 4, every 100mS
  - Can Burst pulses, if desired
- **Timer 2: RC Servo Control**
  - 20mS cycle, 3 channels, always on
- **Timer 3: ADC Acquisition Control**
  - 50uS, for 50mS, gives 1000 data points.
- **Timer 4: Main Control Loop**
  - 100mS, will be optimized later...
  - Initiates Ultrasonic pulses
  - Controls overall state machine