

## **Dec12-04 Ultrasound Brain Imaging System**

### **Weekly Report - 6 (Feb 21 – Feb 27)**

Group Members: Justin Batcheler, Jon Driggs, Francis Ferrer, Allen Kellar, Richard Page, Amairani Tapia  
Faculty Advisor and Client: Dr. Timothy Bigelow

#### **Accomplishments of the last week**

- Jon:
  - Found suitable-looking hardware configuration.
- Richard:
  - Found a patent for the high-voltage amplifier.
  - Found Texas Instruments gain amplifier chips.
- Francis:
  - Found possible vendor for transducer in Philips Healthcare.

#### **Plan for coming week**

- Work on list for parts to order by this summer.
- Continue to work on the electrical design of the ultrasound.

#### **Pending issues**

- Work on having a single channel working.

#### **Individual contributions – identify specific tasks accomplished**

- Richard, Amairani and Allen:
  - Continue to work on the design of the high-voltage pulse generator
  - Search Cadence design files for transistors that can be used in physical implementation.
- Justin and Francis:
  - Continue to work on the design of the T/R switch.
  - Search Cadence design files for diodes and other components.
- Jon:
  - Research National Instruments Digital I/O cards.
  - When hardware is found, prepare a quote for Dr. Bigelow.

#### **Meetings**

- Group meeting on Wednesday with everyone in attendance.