Patient Positioning Aid
funded by RERC

TEAM 10:
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Statement of Need

- Patient positioning aids that are currently available do not meet the needs of patients and hospital staff.
- More versatility needed
- Ease of use and storage
- Compatible with a range of imaging platforms
Current Technology:

- Foam Wedges
  - $150-400 per set
- Wrap-around Coils
- VacLok
  - $150
Objectives

- Design low-cost, versatile, easy-to-adjust patient positioning aid.
- Compatible with CT scan and MRI imaging device
- Meet the needs of patients with a wide variety of disabilities
Design:

- Adjusts up to 18 inches
- 3/16 inches
- 72 inches
- 22 inches
Design:

- Transfer Board – Polyethylene
  - 72” x 22” x 3/16”
- Foam padding
  - 72” x 19” x 1”
- Attachments
  - Aluminum Bars (hold attachments)
- All components will be non-ferrous
Components:

- Attachments:
  - Knee Crutch
  - Arm Positioner
  - Hand Grip
  - Arm Support
Advantages of our Design:

- Meets wider range of patient needs
- Cost-effective
- Easy to use
- Easy to store
- Compatible with imaging devices
Timeline:

- Design 1: Oct. 19th
- Design 2: Oct. 26th
- Design 3: Nov. 2nd
- Optimal Design Analysis: Nov. 9th
- Parts Order: Nov. 16th
- Construct Design: January-April 2006
- Final Product: April 2006
- Final Report and Presentation: May 2006
Budget:

- **Components:**
  - Patient Transfer Table
    (Biodex Model #056-352) $190
  - Foam Padding
    (72”x19”x1”)(Infab Model #583480) $160
  - Attachments
    - 2-armboard $400
    - 2-knee support $300
    - Aluminum bars $100
  - Tracks for attachments $100
  - Other $50
  - Total Design Cost: $1200
In Summary

- Our design will be:
  - Cost effective
  - Versatile
  - Easy to store
  - Easy to use