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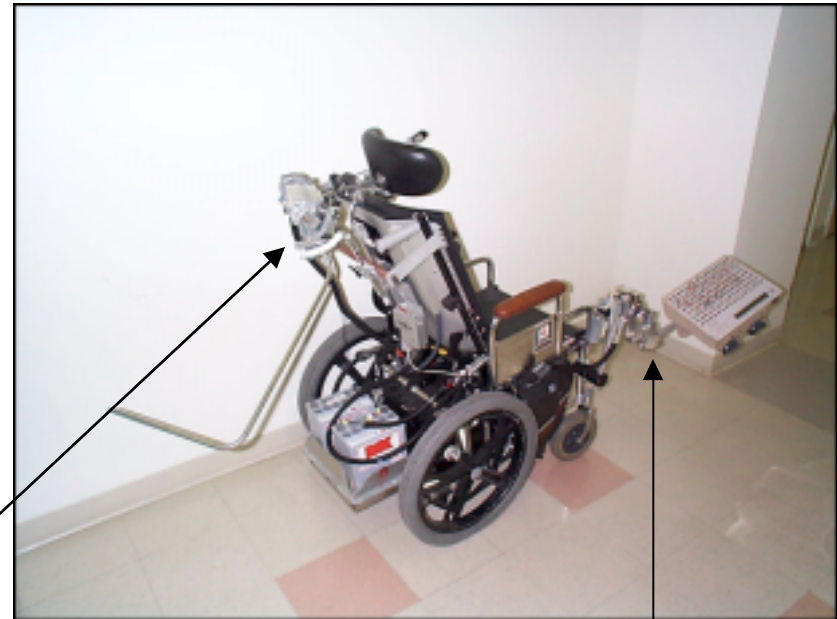
# Accessories for the Wheel-chair Bound

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**Deployed Configuration**



**Stowed Configuration**



Joystick swing-away device

Communication board support linkage

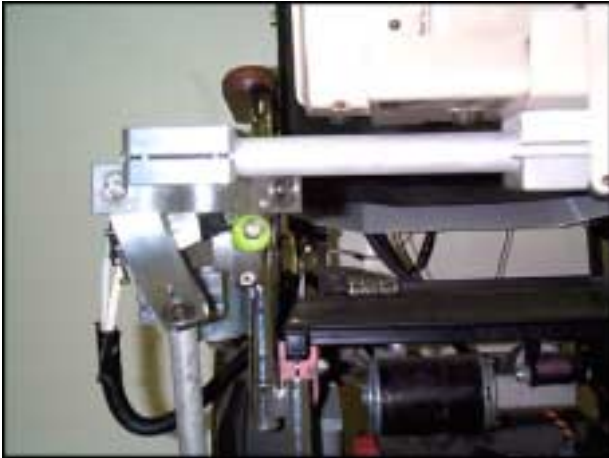
**Award Winner in the PVA student design competition RESNA '99, June 25-29, 1999**

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# Communication Board Support Linkage

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**Deployed**



Coupler is in a horizontal orientation

**Mid-position**



It rotates and turns to the side

**Stowed**



The coupler ends in a vertical orientation

- The communication board is attached to the coupler link,
- Limit switches and physical stops set the range of motion,
- The wheelchair controller connects the DC drive motor to the switches and batteries.

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# Joystick Swing-away Device

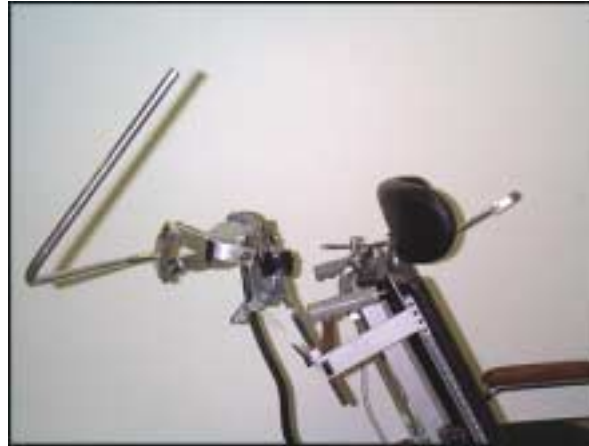
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**Deployed**



The mounting bar is horizontal in front.

**Mid-position**



The coupler rotates to the right and back.

**Stowed**



The bar is again horizontal behind the chair.

- Chin-controlled joystick is mounted to standard support rod attached to the coupler link,
- Limit switches and physical stops set the range of motion,
- The DC motor drive is controlled by the electric wheel-chair controller.