

Adaptive Equipment and Instruction for Success in Adventure Sports



Kayaking



- TAASC uses wide, stable recreational kayaks for beginners
- 6 Kayaks have pontoons which prevent tipping
- 2 tandems and 2 singles have a special seating system for customized support
- An inflatable tandem provides cushioning and stability

Canoes

- Canoes have a 750 pound weight capacity.
- 3 to 5 people in one canoe
- Very large paddlers can be seated on the floor of the canoe for increased stability.



Foam



Foam noodles are used along the edge of the cockpit and across bars of the canoe to prevent skin abrasions.

Assorted sizes of foam cushion a person, provide trunk support, keep legs at midline, and keep a person from slipping down in the kayak.



Side By Side Stabilizer



Otter (9'6") 225 lb weight limit
Loon (13'8") 300 lb weight limit
Tandem (13'8") 400 lb weight limit
Canoes 750 lb weight limit

One Hand/Arm Paddle System

The paddle system is comprised of a grip and adjustable cuff. The cuff and grip are also adjustable along the the paddle shaft to adapt to various arm lengths. The paddle can be used with either the right or left hand by easily repositioning the cuff or grip to the appropriate side of the shaft. One size fits most adults.

ProPel Kayak and Canoe Paddles – available soon



Styrofoam can be shaped to fit in the bow of the kayak for a person who cannot keep their feet on the foot pegs.

A foam wedge can be used under a person's knees for comfort and also to prevent slipping.



Soft braces protect skin.

Paddle Hand Grip Adaptations



- Foam cushions the grip for a person with arthritis. Use a push-pull motion.



- A piece of tubing taped to the shaft of a paddle allows a person with limited grasp to hold the paddle independently.



- A pen taped to the shaft of the paddle, naturally moves to the space between the fingers and the palm encouraging the person to hold the paddle in the right position.

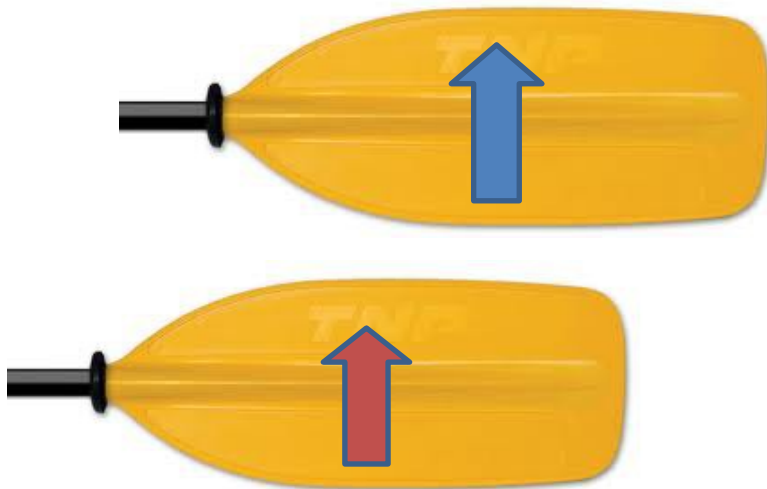
From Creating Ability www.creatingability.com



- Hand grips tighten to keep the hand in place for a person with a weak grip.



- Easy detach device holds the hands in place to control the paddle action with no grip.



Arrows indicate the position of the paddle in the water.
Encourage alternate strokes with one red and one yellow arrow.

A person with limited use of one arm may do well with a paddle with one blade or a custom adaptation.

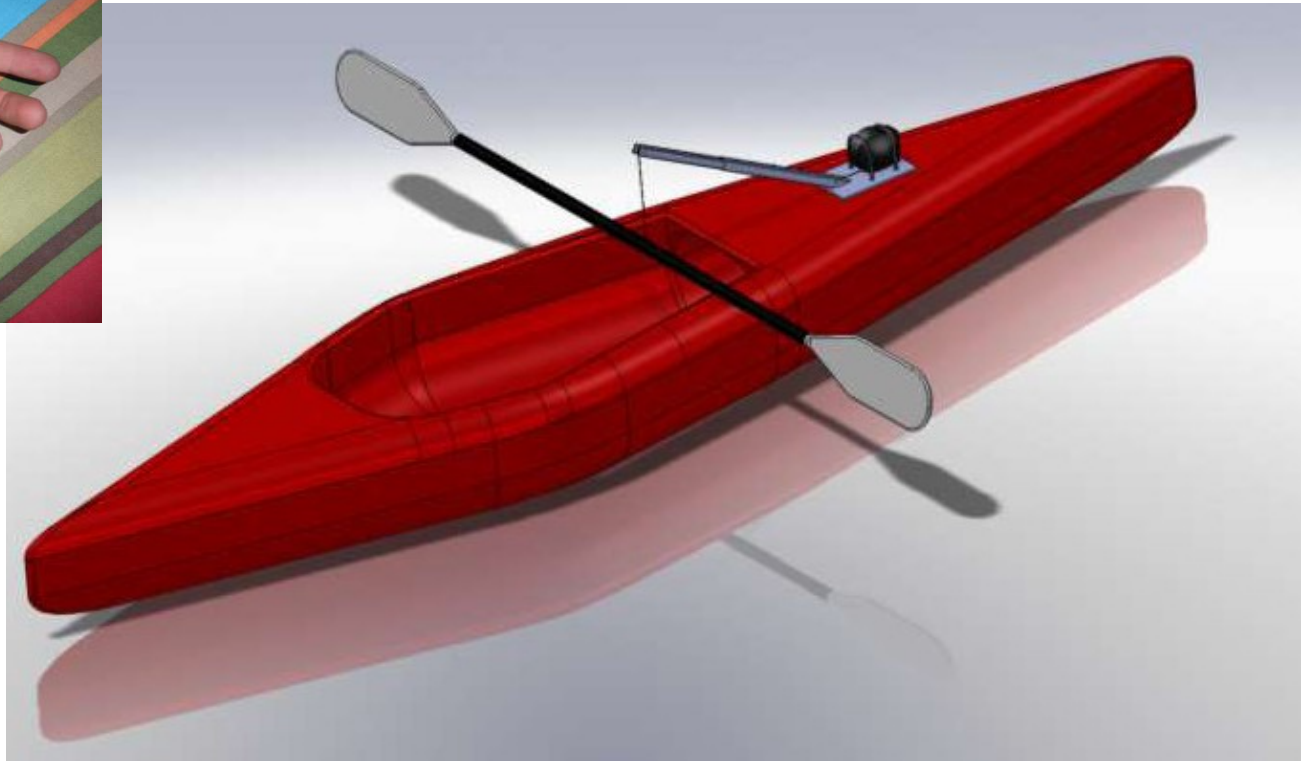


Use lightweight or custom paddles.



Honda Innovation Challenge 2010

Paddle is supported and retracts automatically
Adapted glove secures to paddle with easy release



Transfer Bench



This transfer seat works well for people who use crutches. They first sit on the bench, then move their feet into the kayak, then slide in.



Getting back out, it works better to have the bench back farther so the person can sit on the back of the kayak before using the handles to lift themselves onto the bench.

Transfer Chair

This transfer chair was developed by a team of OSU students. It uses a pneumatic pump and large lever to raise or lower a person to the level of the kayak.



Tethers

- A tether can be used to tow a fatigued paddler, to guide a person with blindness or to help a beginner.
- Participants should be encouraged to paddle to their ability. Make a game of it by saying, I will paddle when you paddle or paddle 10 strokes in a row.

Turns

- Instruct a person to paddle ten times on the same side to make a turn.
- Catch the person on the correct side of the kayak for that turn and start counting telling them to keep paddling on the same side.

Sailing



- 6 person sailboat accommodates wheelchairs.
- 2 trimarans allow three people to sail at once



Columbus Rowing Club



- 2 adaptive shells
- One with a movable seat
- One with a stationary seat

Adapted Bicycles



Tandems work well with a person with sensory impairments, muscle weakness, or who does not pay attention to traffic.

Hand cycles can provide extra support or be designed for high speed and distance.

Bicycle Adaptations

- Single-sided controls for persons who use one hand
- Shifter and brake adapters for persons without grip strength
- Hand and foot-power combined conversions
- Asymmetric crank lengths for persons with a short leg or restricted knee movement
- Hand-crank only conversion
- Hand crank by the hips for people who cannot hold their arms up for extended periods.





AmTrykes - 20 different tricycles for children and adult neighborhood cruisers.



Features include seating support, a handle for an instructor to guide or push the tricycle, wide tires for stability



The therapeutic tricycle for children with disabilities

Additional Options

- Options for holding feet on pedals or hands on handlebars, head rest, adjustable placement
- Extra stability for balance
- Movable pedal brackets for those with very short legs
- Seat belts, additional pieces or supports for postural support
- Two-seaters with one or both pedals having a hand-crank



Ice Skating



Walkers and sledges

Poles or hockey sticks with an ice pick on the end.

Fishing



Adaptive equipment helps people to hold the pole or rewind. Some have automatic reels. Others attach to a wheelchair.

Adaptive Equipment

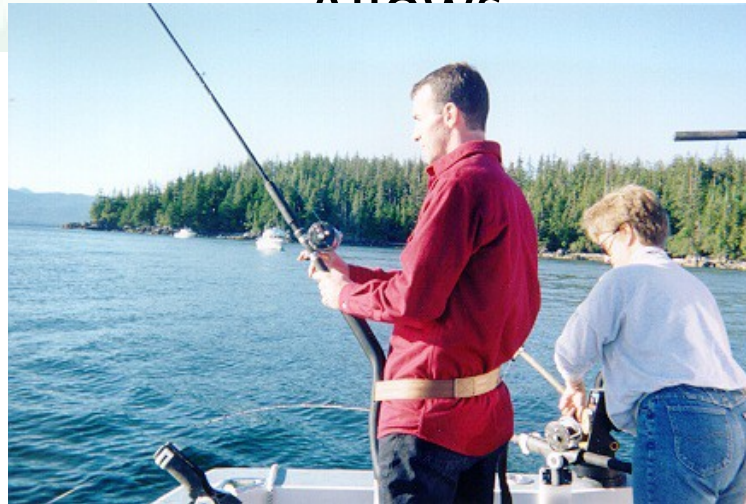
Strong Arm

Fishing rod holder.



Hands Free Waist / Belt Holder

Allows



Alpine Skiing and Snow Boarding

Mono Ski
Bi Ski





Outrigger pole



Stand Up Ski Walker
provides four skis across
for greater stability.

Ski Bras keep the tips together. Tethers can be added allowing an instructor to have more control and to facilitate turns by pulling on one side of the tether.



Tethers provide control and can be used to facilitate turns.



Sensory Accommodations



Vests alert others to a skier with a disability while a guide coaches the skier.



Water Skiing



Sit skis are custom fitted.
Two boats support a water skier.
Jumpers pick up equipment from
the water.



Volunteers support the skier until
they are balanced.

