



## Fundraising Information

The Fun-DUCT-Raiser was created:

1. For people to have fun at Spryfield's beautiful Long Lake Provincial Park as part of the annual Spryfield Days community event, and
2. As a fundraiser to support the volunteer-run Long Lake Provincial Park Association [LLPPA], a not-for-profit group that funds the Park's operations and care.

Event expenses and organizing efforts for the Fun-DUCT-Raiser are being paid for by POLYCORP Group, a Spryfield-area business.

3M Canada has very generously donated their premium quality duct tape to support this community fundraising event. This means **participants do not need to purchase their own duct tape** [and this 3M stuff is not the cheap stuff you find at the dollar store – it's premium!]

There is **no entry fee** to participate in the event. Instead, teams are asked to raise as much money as they can in sponsorships to fund the LLPPA. Feel good knowing that **100% of funds raised go to the LLPPA** to fund park operation and facilities expansion.

Suggested sponsorship targets for teams are noted below.

Family	Youth	Corporate/Community	Open Class
\$500	\$200	\$1000	\$500

Please direct your sponsors to our GoFundMe page to submit their donations: [GoFundMe.com/funductraiser]. Ask them to **put your name in the comments section** when they make their donation via GoFundMe so we can track your success! Or, if you prefer, you can collect the money from your sponsors and make the donation under your own name.

When we set up the LLPPA GoFundMe page, we thought, 'why not?' and set our sights high with a target amount of \$100,000. Helping us get there faster is that every dollar raised can normally be multiplied with different grant programs for the organization, so **every single dollar raised is valuable**. Let's see how much we can raise for this fabulous community gem.

Let's Get Quacking!!!



## Construction Rules

- The **ENTIRE** boat must be built of cardboard and duct tape. Only exceptions are paddles and decorations (which are **HIGHLY** encouraged, as long as they don't affect structural strength or buoyancy). Regular canoe/kayak paddles are also allowed.
- Latex paint is the only type of paint allowed on the outside/inside of the boats.
- The crew compartment **CANNOT** be enclosed to ensure escape from a sinking boat.
- Use cardboard boxes, cardboard "blocks" or carpet tubes, of any thickness.
- **NO** pre-treated cardboard or Sona-tubes waxed or 'treated' cardboard allowed (i.e., nothing that has been pre-waterproofed since that would be cheating!).
- **NO** wood, plastic, fiberglass, Styrofoam, rubber or other flotation aids.
- **NO** caulking compounds, single, two-part/mixed adhesives, epoxies, varnishes, sealants, sealant type paints, or oil paints (and we can tell! 😊)
- **NO** wrapping in plastic, fiberglass sheet or resins, or peel-and-stick waterproofing membranes.
- **NO** electrical, gas, benzene, propane or any other chemicals or air propulsion system is allowed.
- Duct tape may be used to reinforce seams.
- Hull wrapping with duct tape is allowed for waterproofing purposes (inside & outside of boat). This is the only acceptable way to waterproof your boat.
- **Illegal boat materials = disqualification.** If uncertain about eligibility of a cardboard type material, ask organizers for an official ruling.

## Duct Tape Supply

- Each team will be given 6 rolls of 3M Performance Plus Duct Tape.
- Rolls are 55 metres long x 4.8 cm wide = 2.64m<sup>2</sup>. With a 25% overlap, this yields 1.98m<sup>2</sup> surface area coverage (approximately 21 square feet). So, 6 rolls = +/- 120 square feet of surface area.
- The duct tape has been generously donated by 3M Canada. Retail value of the product approximately \$25.00 per roll + tax.
- No hoarding of the premium quality 3M Duct Tape please! Leftover rolls should be returned to the organizers to be saved for next year's event.
- Contact organizers to make arrangement to get your duct tape starter pack. 902-431-9917

## CONSTRUCTION MATERIALS

Allowed	NOT Allowed
Corrugated cardboard (can find at appliance & grocery stores)	Wood, Styrofoam, plastic sheathing
Cardboard "blocks" (can find at furniture stores)	Sona-tubes, coated cardboard
Cardboard tubes (can find at flooring stores)	Silicon, wax, tar, caulking compounds
Fastening material – duct tape only	Fiberglass, resins, paint (except for above water decorations)
Latex paint	Metal, staples, clamps, screws, nails
Decorations (cannot affect structural strength or buoyancy)	Ballast type devices – and bags, rock, brick, etc.



## **General Race Rules**

- Boats must be labelled with a name. The name must be in letters/numbers at least 4" high.
- Crew costumes and themes are encouraged.
- Minimum age of crew is 8 years old. Children under the age of 12 must have an adult in the boat with them.
- No more than 4 people per boat.
- Every crew member must wear a personal flotation device (PFD) and proper footwear.
- During the competition, the crew must be IN the boat. They cannot be towing it in, pushing it, or holding onto it from the outside. IN means IN!
- All propulsion must be from the entrants and is limited to one oar or paddle per person; double-ended kayak-style paddles are allowed.
- No swimming or using a PFD (personal flotation device) to aid boat flotation.
- If your boat sinks, your team must exit the water immediately without interfering with the other participants.
- Sunken boats (it happens...) must be dragged to parking lot surface for disposal. Entrants must collect all parts that may become separated from boats in the lake.
- Throwing water on another boat and/or unsafe behaviour = disqualification.
- Behaviour considered unbecoming a sportsperson will result in disqualification.
- No pets allowed in the boats.
- All race participants must sign a waiver and release agreement prior to the race.
- Judges will decide on the interpretation of the rules in the event there is ambiguity or unforeseen situations.

## **Awards**

- **1st, 2nd, and 3rd place** will be awarded for the top three race times
- **Creativity Award** – boats will be judged on design, appearance and originality; appearance might also include consideration for costumes worn by the boat crew
- **Titanic Award** – for the most spectacular sinking
- **People's Choice Award**





## **Race Day Schedule**

**Location:** Long Lake Provincial Park, Waterfront Trail Boat Launch Area, 75 Old Sambro Road

### **Pre-race line-up: 11 am – 11:45 am**

All boats must be on site, registered, and have their boat number secured to the vessel by 12:00pm. The parking lot has limited space and will be used for unloading of boats only. Please move your vehicle and park on the surrounding streets or at South Centre Mall on Dentith Road.

### **Judging: 12:00 pm**

Our judges will choose the winner of most creative boat.

### **Duct Tape Boat races: immediately following the judging**

When your boat is called, you'll place it in the water at the starting point. We will have volunteers on hand to keep your boat steady before you start, or you can bring someone with you to do that. Boats will race from the boat launch to a buoy approximately 80m away, paddle around the buoy and back to the start point.

### **Duct Tape Boat Divisions:**

1. Family :: Families with children a minimum of 8 years old.
2. Youth :: Aged 12 to 17. The boats must be built and decorated with very limited adult involvement and must be paddled by the youth.
3. Corporate/Community :: Businesses and community groups.
4. Open Class :: Open to any age (8+ years old) or group who wishes to participate.

### **Heats:**

Heats will consist of, at most, 4 boats at a time. Boats with the fastest times in the preliminary heats will race again in a final round to determine the winners.

### **Awards: Following the Race**

Once the races are over, please join us at the boat launch area for the announcement of awards. Certificates will be given out to the winners to commemorate their success!

**Finally:** At the end of the race, please take your boat with you or discard it in the designated spot in the parking lot.



## SUGGESTIONS & CONSIDERATIONS

- Set design goal: Fun, Speed & Appearance
- Sketch out your design
- Build a scale model from manila paper
- Estimate materials or plan how to use what you have
- Plan out what construction technique will be used
- A box measuring 1' x 1' x 3' will float 187 lbs
- In theory: If it's big enough to hold you, it will float you
- Flat bottom, sit-to-paddle & canoe styles have been the most popular and successful designs in the past
- Long boats go fast, but are harder to turn
- Short boats (<8') are difficult to paddle straight
- Best Length: 8-12'
- Best Height: 18" (allows room to sit/kneel & still paddle over the edge)
- Best Width: 18"- 30" (max) for 2 or more people in a row  
Minimum 48" wide for 2 people side by side
- Kneeling is a "power" position but sitting is more comfortable

## Basic boat styles



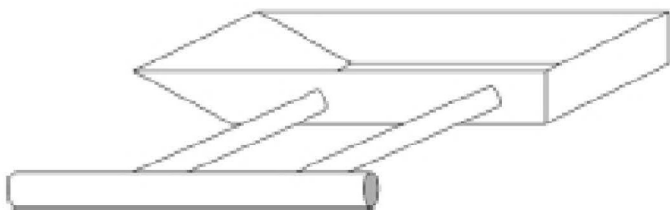
Simple  
Box



Slanted  
Box



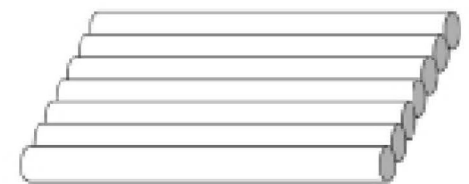
V-Shaped  
Bow



Outrigger  
Design



Pontoon  
Design



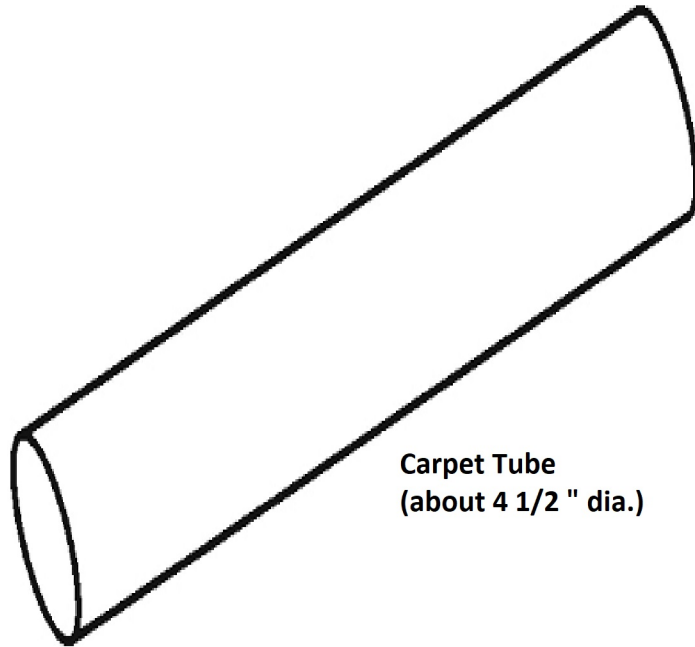
Raft  
Design

CONSTRUCTION

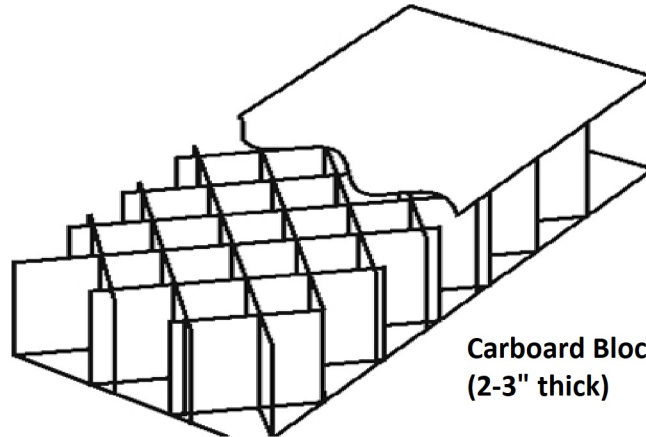
FUN DUCT + RAISER.ORG  
duct tape boat races

# CONSTRUCTION

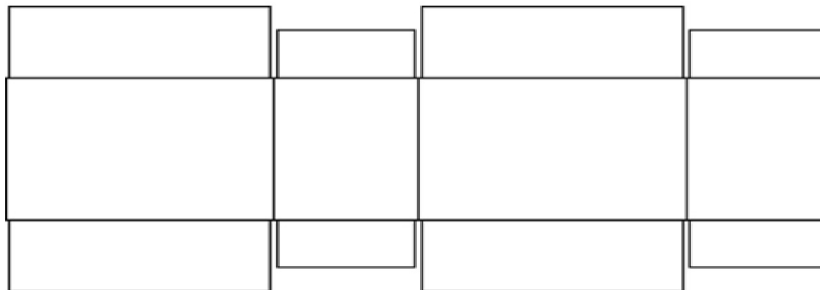
**FUN + RAISER**.ORG  
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Carpet Tube  
(about 4 1/2 " dia.)



Cardboard Block  
(2-3" thick)



Cardboard Box - cut  
open



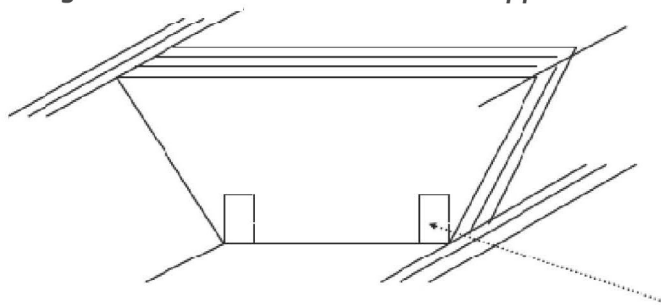
## SUGGESTIONS

- Cover all edges and joints. Cardboard acts like a siphon
- Cardboard tubes make great frames. (Cut for joining & bending)
- Cardboard Hull: 1 or more layers, fasten & cover the seams. With 2 layers, overlap the seams & duct tape like crazy. Decorate with Latex paint (if desired).
- Reinforce the area where the crew will sit, kneel or stand
- Duct tape only non-painted surfaces (duct tape shrinks with painted)

# CONSTRUCTION

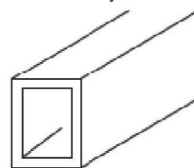
FUN **DU**CT + RAISER.ORG  
duct tape boat races

Multiple cardboard layers  
"adhered" together with duct tape  
on the sides strengthen *the hull*



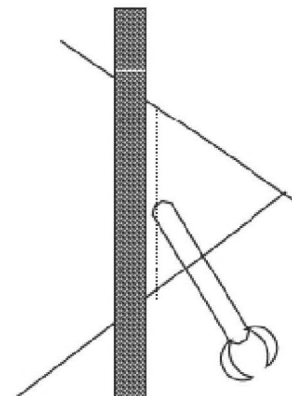
Multiple trapezoid-shaped pieces  
"adhered" together with duct tape  
to form a "support block"

A sheet of cardboard  
could be folded &  
"adhered" together  
with duct tape to form  
*tubes/beams*



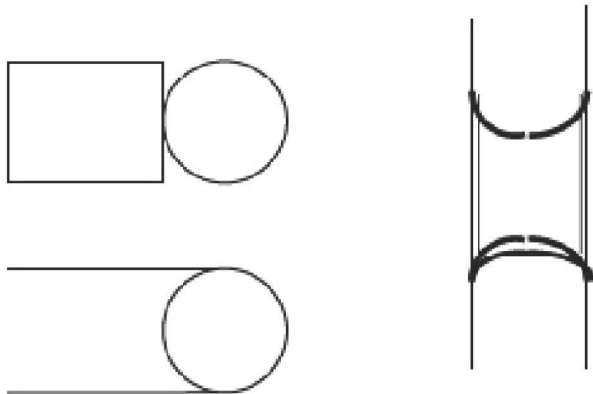
Crease/Score a line  
for a nice

STRAIGHT  
FOLD

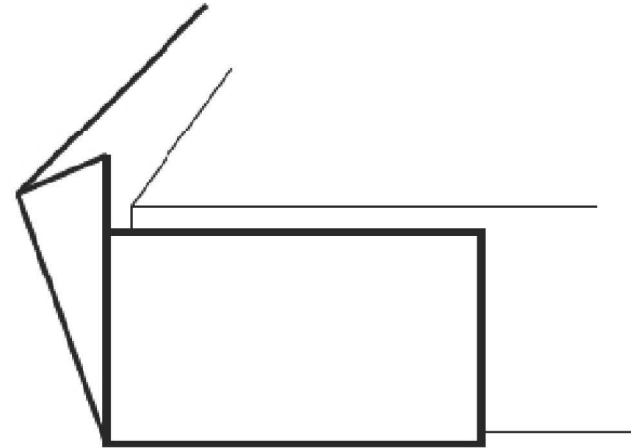


# CONSTRUCTION

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duct tape boat races



**TUBE CUTTING  
TEMPLATE**



**FOLD & OVERLAP  
CARDBOARD  
AROUND CORNERS**

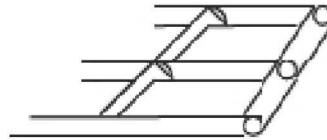
# CONSTRUCTION

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duct tape boat races

## FRAMES

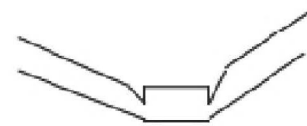


Solid Tube  
Frame

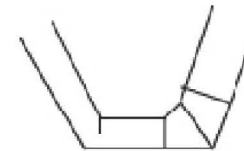


Center/Cross  
Beam  
Frame

## FRAME ANGLES



V-Shaped Cuts



Multiple Cuts  
for Sharper Angles

## CONNECTING TUBES

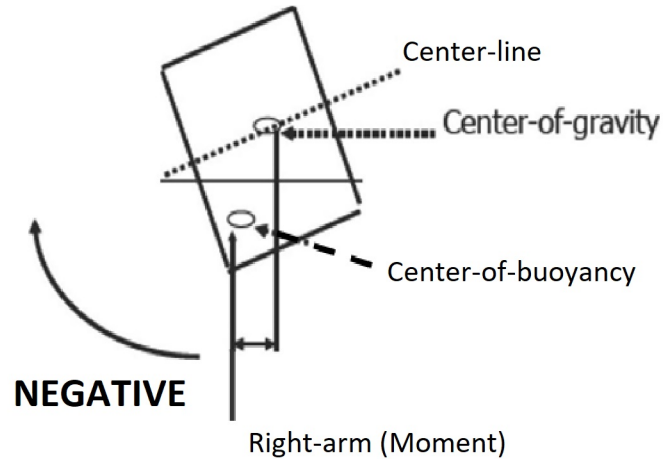
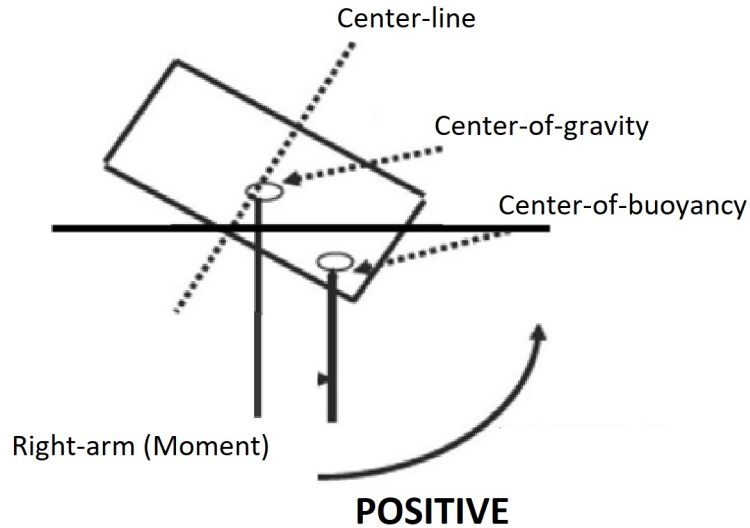
Cardboard  
Wrapper for Tubes  
End-to-End



Cardboard  
Wrapper for Tubes  
At Right-Angles

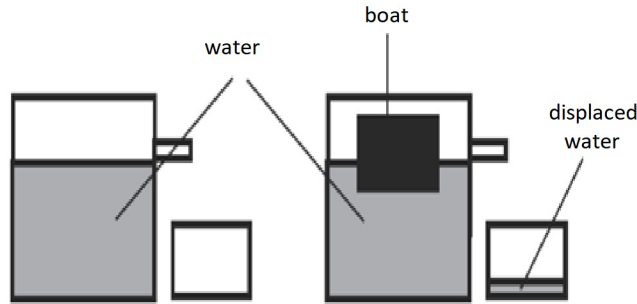


## WIDER IS STEADIER

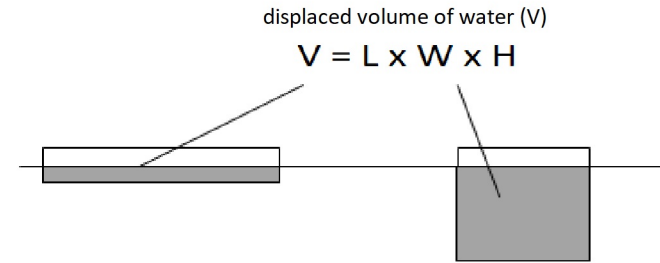


# DISPLACEMENT

## HOW MUCH WILL YOU SINK?



Weight of Water =  
62.4 pounds/cubic-foot



Water displaced (ft<sup>3</sup>) =  $\frac{\text{weight-of-boat \& people (lbs)}}{62.4 \text{ lbs/ft}^3\text{-H}_2\text{O}}$

Depth (ft) boat sinks \_\_\_\_\_

Example: Box boat, 3 ft x 6 ft tall (high)  
Boat volume = 3' x 6' x 1' = 18ft<sup>3</sup>  
Boat displacement = 18 ft<sup>3</sup> x 62.4 lbs/ft<sup>3</sup> = 1123.2 lbs  
Which equates to 93.6 lbs per inch of boat height