

Mini Boat Bash – A Family Float-Off!!

OFFICIAL RULE SHEET

Event Overview

Family teams will design and build small cardboard boats to race in the pool. Boats will be pushed or propelled from shallow water but must float independently and follow all construction rules.

1. Allowed Materials

Hull & Structure

- The **main hull must be made of cardboard**
- Corrugated cardboard, paperboard, and cardboard tubes are all acceptable
- Hull must be at least **80% cardboard** by surface area

Adhesives & Coatings

- Duct tape, packing tape, masking tape
- White glue or wood glue
- Water-based paint
- Tape may reinforce seams but cannot replace cardboard as structure

Mechanical Propulsion Components (Optional)

- Hand-cranked paddles or wheels
- Rubber-band-powered paddles
- Lever-based flippers
- Pulley or crank systems
- Gears, axles, and linkages made from cardboard, wood, or plastic
- Small plastic paddles or fins

****All propulsion must be human-powered only.**

Plastic Elements (Decorative or Mechanical)

- Small plastic gears, axles, bushings
 - Plastic ornaments, flags, figureheads
 - Plastic fasteners (zip ties, clips)
 - Plastic components may assist mechanical motion but **may not provide flotation**
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2. Prohibited Materials

- No foam, resin, fiberglass, wax, or waterproofing sealants
 - No electronics, motors, or battery-powered systems
 - No sealed plastic containers used for buoyancy
 - No metal components larger than small screws or washers inside mechanisms
 - No sharp hardware or anything that could damage the pool (staples, nails, etc.)
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3. Boat Size Requirements

- **Maximum length:** 3 ft
- **Maximum width:** 1.5 ft
- **Maximum height (including decorations):** 2 ft
- **Minimum hull depth:** 4 inches
- **Boat must be light enough for *one grown-up person* to carry comfortably with one arm**
- **Hull must remain at least 80% cardboard**
- Mechanical components and decorations must fit within these dimensions
- Boat must still float independently, even if designed for shallow-water pushing

4. Participation Options

Boats may be:

- **Paddled** by hand or with mechanical systems
- **Pushed** from shallow water if too small to ride

All propulsion must be human-powered.

5. Safety Rules

- Life jackets required for anyone entering deeper water
 - No running on the pool deck
 - No intentional collisions or swamping
 - Boats must have smooth, safe edges – no staples or nails please!
 - Participants must stay in their assigned lane
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6. Race Procedures

- Boats start behind the starting line with one hand touching the wall
 - Race ends when the bow crosses the finish line
 - If a boat sinks, participants may continue guiding or pushing it
 - Judges may disqualify boats that violate construction rules
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7. Pre-Race Inspection

Boats must pass inspection for:

- Allowed materials
- Safe construction
- No waterproofing
- Ability to float for 10 seconds in shallow water

BUILD-DAY CHECKLIST

1. Before You Start

- Team has read the official rules
 - Team has chosen a boat concept or theme
 - Work area is clear, dry, and safe
 - All tools and materials are gathered
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2. Materials Check

Hull & Structure

- Corrugated cardboard / paperboard ready
- Cardboard tubes (optional)
- No foam, resin, fiberglass, or waterproof coatings

Adhesives & Coatings

- Duct tape / packing tape / masking tape
- White glue or wood glue
- Water-based paint only

Mechanical Components (Optional)

- Hand-crank, lever, or rubber-band mechanisms planned
- Plastic gears, axles, or paddles (small only)
- No motors, electronics, or battery-powered parts

Decorations

- Cardboard or paper decorations
- Small plastic accents allowed
- No decorations that add flotation

3. Hull Construction

- Hull shape traced and cut
- Bottom panel reinforced with layered cardboard
- Side walls attached securely
- Seams taped tightly
- Minimum hull depth: **4 inches**
- Hull is at least **80% cardboard** by surface area
- No sharp edges or protruding hardware

4. Mechanical Propulsion (If Included)

- Mechanism is fully human-powered
- Moving parts operate smoothly
- No pinch hazards
- Mechanism is securely attached
- Mechanism does not extend into other lanes

5. Safety & Stability

- Boat can be lifted by two people
- Weight is evenly distributed
- No metal parts larger than small screws/washers
- No sealed plastic containers used for flotation
- Edges taped or sanded smooth

6. Decoration & Theme

- Theme is clear and consistent
 - Paint is water-based
 - Decorations securely attached
 - Decorations do not interfere with propulsion
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7. Pre-Race Float Test

- Boat placed in shallow water
 - Floats independently for at least 10 seconds
 - No water leaks observed
 - Mechanical components function in water (if applicable)
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8. Final Race-Day Prep

- Team member assigned to push/propel
 - Life jackets ready
 - Team understands lane rules
 - Team spirit high and ready to race!
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