

# RonBoni

**The RonBoni in Action Operated by it's Creator, Ron Z.**



*Note this is a draft and extremely incomplete at this time. This document will be updated as time permits.*

## Overview

The RonBoni is the brain child of Ron Z. one of the members of the Syracuse Speed Skating Club ([www.syracusespeedskating.org](http://www.syracusespeedskating.org)). It's great during practice sessions to resurface the track and also useful for race events. It's even portable enough to be transported in a vehicle for transport to race events. There have been several refinements over the years but the basic design remains unchanged.

Skills required to build the RonBoni exist within most clubs. The only skill that might have to be contracted out is the frame welding. Beyond that, some creativity, the ability to cut metal (angle iron, flat stock and round stock), working with PVC pipe and painting are all that are required.

Cost is minimal but not free. Beyond the minimal steel stock the three costliest items are the whirlpool tub valve (\$75), the tank (\$40) and the wheels (\$25 each). The tank support frame and runners can be made from bed frames.

## Parts list

Frame	1 1/2" x 1/8" x 78 1/4" angle iron (bed frame)	Tank support frame
	1 1/2" x 1/8" x 14" angle iron (bed frame) (2)	Runners
	1" X 1/8" X ?" square steel tubing	Side support
	1/2" x ?" round tubing	Cross bracing
	1 1/4" x 1/8" x 10" steel flat stock (2)	Runner support
	2" x 1/8" x ?" steel flat stock	Belcrank support
	? foam pipe insulation (2)	Frame/Tank cushion
	2" x 1/8" x 18 1/8" angle stock	Axle support
	1/2" x ?" round steel stock or threaded rod	Axle
	Wheels, 14" X 1 3/4" tire, 1 1/2" hub, 1/2" axle(2)	
	1/2" flat washers (10)	Axle washers, 4 inside, 1 outside per side
	1/2" hitch pin clips (2)	For round stock axle
	1/2" Nyloc lock nut	For threaded rod axle
	Lawnmower handle with safety stop lever	
	Bellcrank	
	Bolts, flat washers & lock nut (2 each)	Runner attachment bolts
Sweep	Garage door seal, 56"	Sweep
	Aluminum flat stock (2)	Sweep hangers

	Aluminum flat stock, 1 ½" X 1/8" X 4'	Sweep backing plate
	Bolts, flat washers & lock nut (3 each)	Sweep attachment bolts
	Chain	
	Hitch pins (2)	
	Hitch pin clips (2)	
	Chain	
	Chain clip	
Tank	15 gallon tank (22"L X 14.5" D)	
	Cap, 3" plastic mechanical test plug, Oatey 33402	
	Hot tub valve	
	Straps (2)	
	Rectangular 5 gallon water jug	Funnel
Boom	1 ½" PVC Tee	
	1 ½" to 1" PVC bushing (2)	
	1 ½" X ¾" PVC	
	1 ½" rubber coupling	
	1" X 23" PVC (2)	
	1" PVC Cap (2)	
	PVC Cement	
Control System		

## Skills

## Construction

Several critical dimensions exist such as:

- The tank must fit in the frame
- The tank must clear the wheels
- The bottom of the wheels must have approximately  $\frac{1}{2}$ " clearance from the ice while the RonBoni is resting on the runners.

## Acquisition

It is suggested that all parts including the tank be acquired prior to starting frame construction as it is likely that the dimensions of your tank, wheels and lawn mower handle may influence the frame dimensions.

## Frame

Wheels: <http://www.hardwareandtools.com/Arnold-1475-P-14-By-1-3-4-Inch-Plastic-Spoked-Wheel-2092849.html>

ARNOLD" PLASTIC WHEELS 1475-P

- \*14"
- \*14" x 1.75"
- \*1/2" diameter hub
- \*1-1/2" wide hub
- \*Offset hub
- \*Nylon bearing
- \*Plastic wheel
- \*60 lb. max. load
- \*Diamond tread
- \*For high wheel lawnmowers
- \*Bulk with label

## Tank

Google search "15 gallon poly drum closed head"

[http://www.gilmorekramer.com/more\\_info/polydrums/polydrums.shtml](http://www.gilmorekramer.com/more_info/polydrums/polydrums.shtml)

<http://www.usplastic.com/catalog/item.aspx?itemid=24131&catid=459>

<http://www.usplastic.com/catalog/item.aspx?itemid=22828&catid=459>

**15 Gallon Natural Closed Head Drum, 16" Dia x 22-3/4"H \$35**



## Boom

### Control System

Google "pvc drain valve cable operated"

[http://www.hardwareandtools.com/Plumb-Pak-645PVC-1-1-2-Inch-Wht-Cable-Drain-u110218.html?utm\\_source=Google%20Products&utm\\_medium=Product%20Search&utm\\_campaign=Google%20Products](http://www.hardwareandtools.com/Plumb-Pak-645PVC-1-1-2-Inch-Wht-Cable-Drain-u110218.html?utm_source=Google%20Products&utm_medium=Product%20Search&utm_campaign=Google%20Products)

<http://www.plumbingsupply.com/flexible-bathtub-drains.html>

<http://mountainplumbing.com/bwo40s22p2>

<http://www.faucetdirect.com/kohler-k-7214-tub-waste/p416172> Kohler K-7214 \$70 wonder if just the valve is available as a part. Per parts list, valve not available as a part.

[http://www.chicagofaucetshoppe.com/Cable\\_Operated\\_Bath\\_Drains\\_s/5031.htm?searching=Y&sort=5&cat=5031&show=72&page=1](http://www.chicagofaucetshoppe.com/Cable_Operated_Bath_Drains_s/5031.htm?searching=Y&sort=5&cat=5031&show=72&page=1)

<http://www.valterra.com/rv/bladex-valves.htm> TC172 \$68 gate valve

Sweep

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## Frame Details

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## Pictures

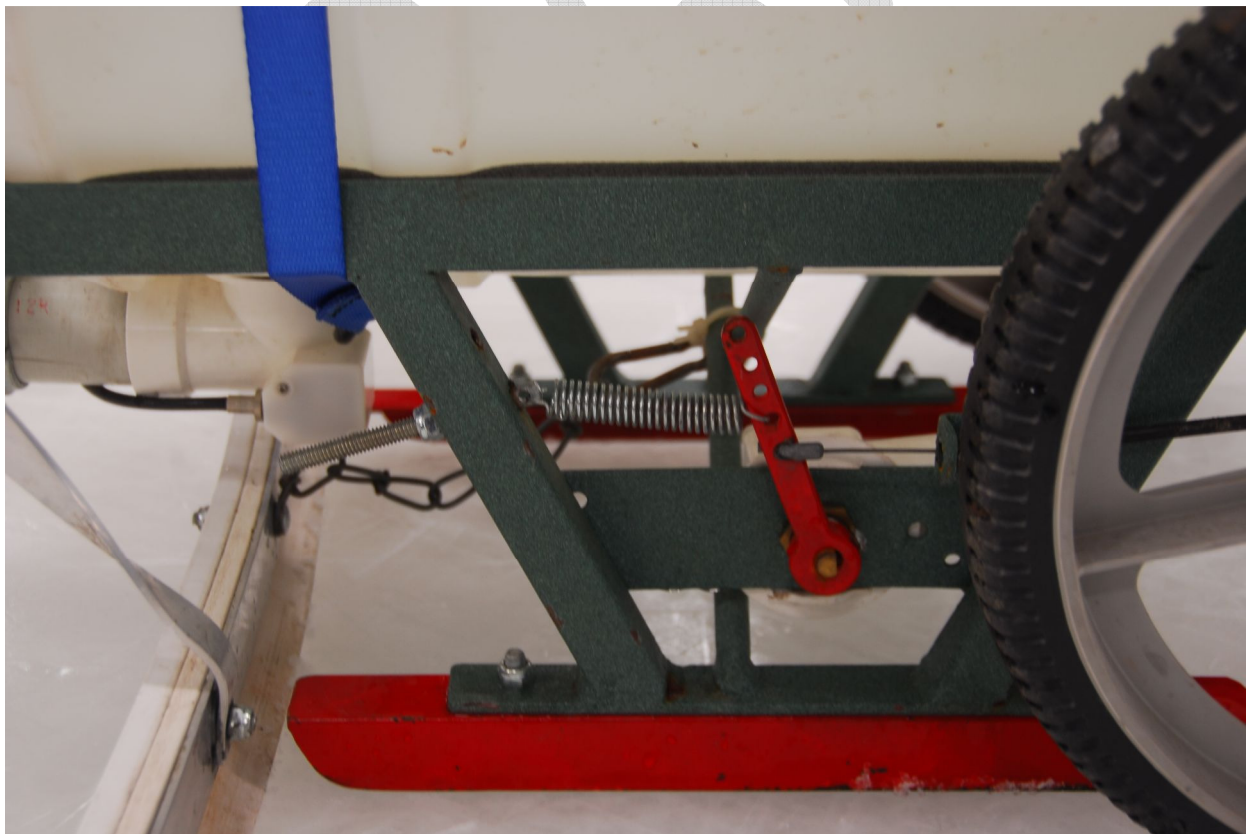


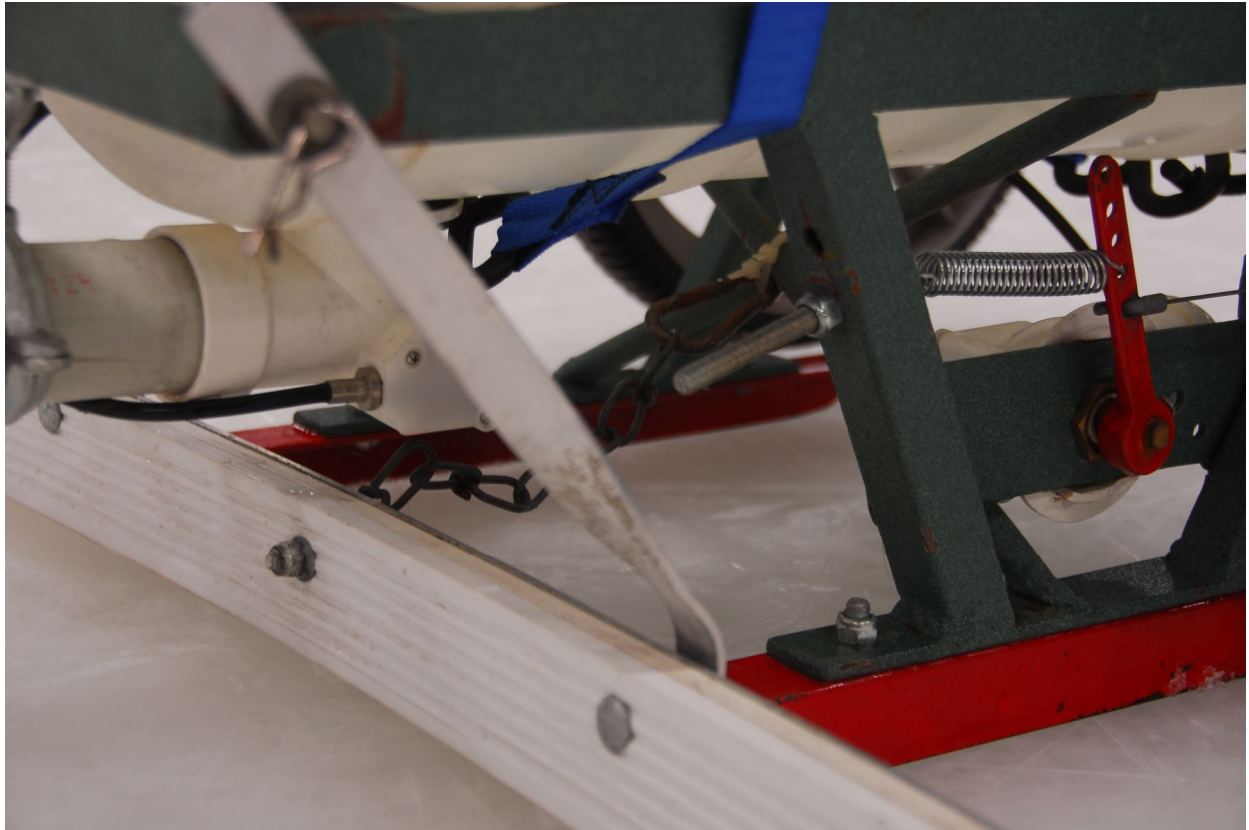
















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