

1.Parts List 2.Construction Instructions 3.Assembly and Calibration

Tools required:

1. vise
2. Hack saw (new blade!)
3. 3/16" drill bit
4. drill
5. decimal ruler (dail calipers nice)
6. file
7. star tip screwdriver
8. any other tools that might help

Parts List: See Pix 1

1. (1) 2"x2"x1/8" angle iron 2" long (**LATCH**) (\$0.50)
2. (1) 1"x 2.5"x1/8" flat iron (**LEVER**) (\$0.50)
3. (1) 2" cabinet hinges "ACE" or "National" Brand (\$3.00)
4. (1) Ball inflator needle (\$1.00)
5. (1) 8/32x2" screw (\$0.10)
6. (4) 8/32x1/2" screws (\$0.50)
7. (5) #8 lock washers (\$0.30)
8. (2) #8 flat washers (\$0.10)
9. (7) 8/32 nuts (\$0.50)
10. (1) #3 rubber stopper with no holes (\$0.60)
11. (1) 8"x8"x 1/8" to 1/4" thick plastic, metal, aluminum, or wood, plate sturdy enough to handle being wet and the weight of a full 2 liter bottle on it. (\$1.00)
12. (4) 1" dry wall screws to screw launch pad to wood sides (\$0.40)
13. (2) 1"x6"x 8" wood sides (\$0.50)

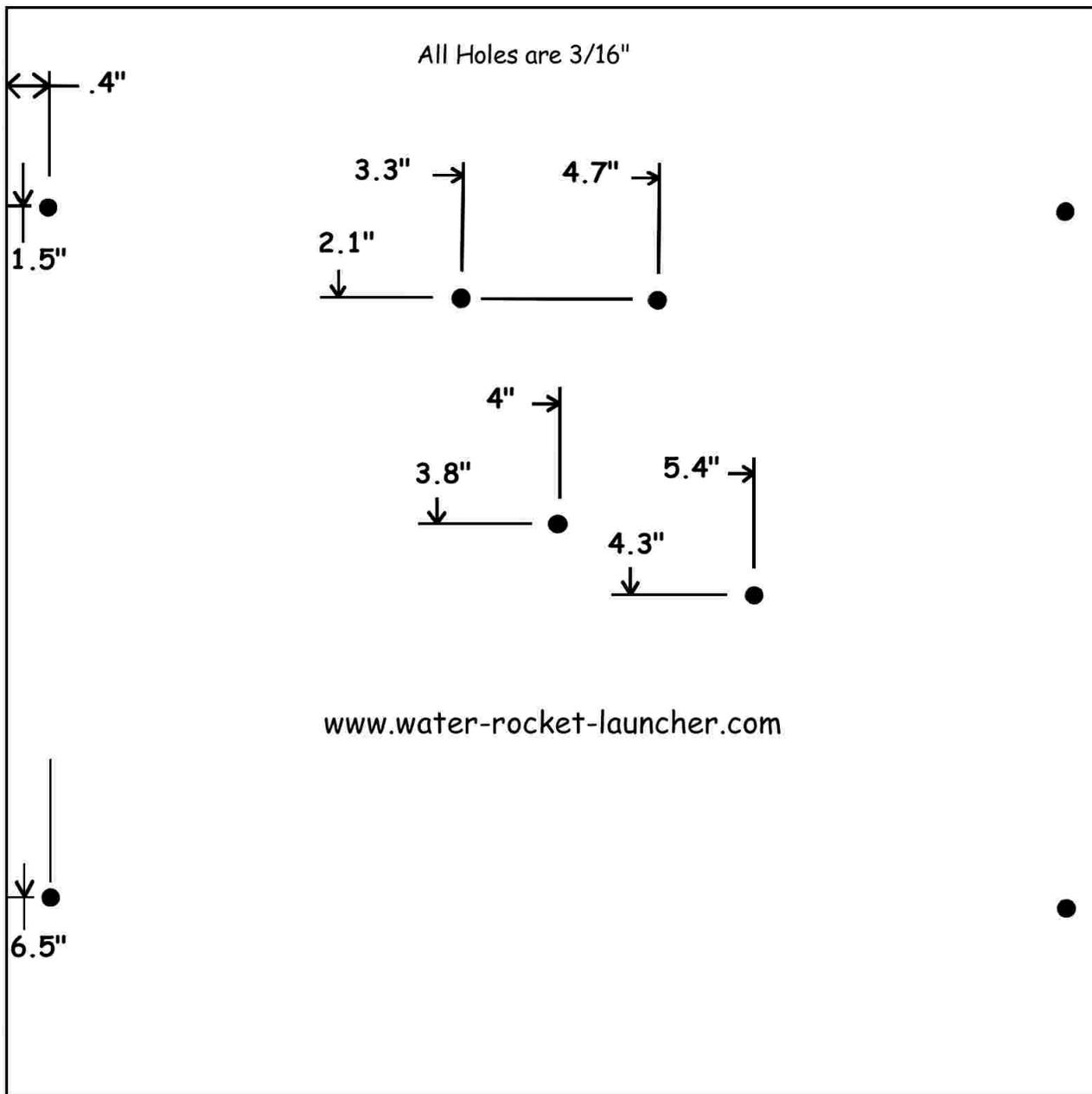
STEPS: (NOTE: all holes are with the 3/16" drill bit)

1. Drill the 8"x8" plate ---see **drawing**

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Plastic, metal, aluminum or wood plate sturdy enough to handle being wet and the weight of a full 2 liter bottle on it.

8"x8"x 1/8" to 1/4" thick



2. Drill the 1"x2.5" flat iron **lever** ---see **drawing**
3. Drill the hinge holes on the **latch**--- see **drawing** and **pix 2**
4. Cut 1" off the hinge side of the **Latch**. See **pix 2**
5. See drawing for LATCH cut lines and **Pix 3**. When marking the cut locations on the latch it's best to use a scribe and scratch a line to follow or use a very fine marker. Once the cut lines are marked drill 3 or 4 holes close together at the bottom of the latch (**pix 3,4**) then you can cut a notch out of the latch (**pix 5**) and then turn the hack saw side ways to cut the bottom out.

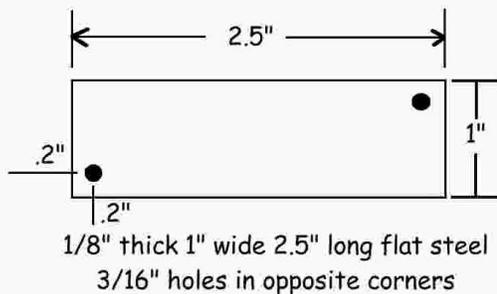
WARNING: When you are finished cutting the latch the opening cannot be wider than 1.1" or the latch will not catch the pop bottle correctly. This is the most critical part of the whole launch system so follow the drawing and cut carefully!!!!

6. File the bottom edges really good so the metal doesn't cut the bottle up. See **Pix 7**

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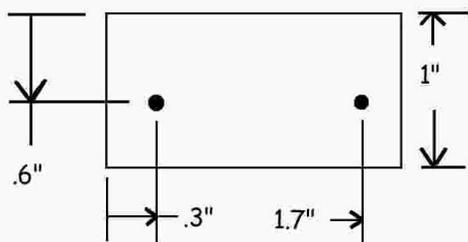
www.water-rocket-launcher.com

Lever



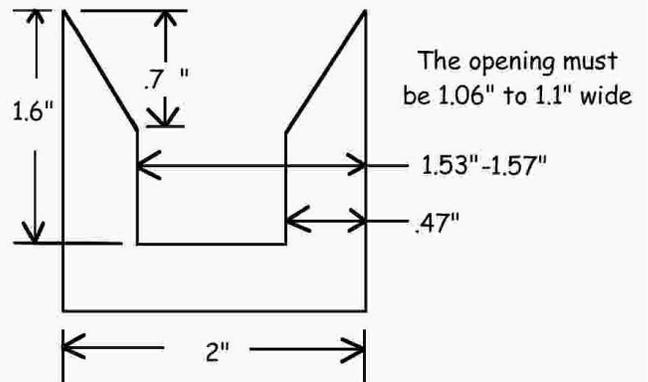
Test fit the latch on a pop bottle then file it larger if it's too small. If too much was cut then the latch won't properly catch the pop bottle and you will have to cut another one.

Top edge of Latch
3/16" Hinge hole location



2" piece of 2x2x 1/8" thick Angle steel
with 1" cut off
hinge side after
3/16" holes are drilled

← Latch →

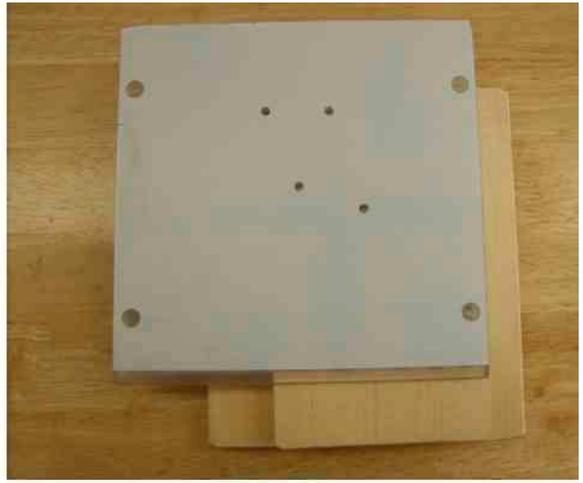


The opening must be 1.06" to 1.1" wide

Top view of Latch



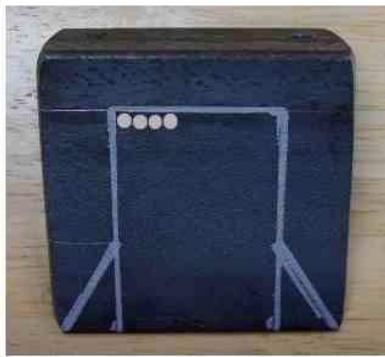
Pix 1



Pix 1



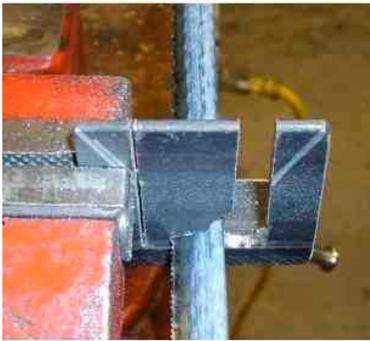
Pix 2



Pix 3



Pix 4



Pix 5



Pix 6



Pix 7

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Standard Blaster Kit Instructions

www.water-rocket-launcher.com

Smaller Blast Pad to accommodate rocket fins



The Kit



Finished Launcher



LEVER

Fig 1.

LATCH



Fig 2.

Screw the two sides on using the wood screws.



Fig 3.

Place the latch over the two holes and put two 1/2" machine screws through the holes.



Fig 4.

Hold your fingers on the two screws for the latch and tip the unit on end so you can put the lock washers then the nuts on. See next step before you tighten them.



Fig 5.

THIS IS WRONG! See Fig 3. Make sure the latch is **CENTERED** on the stopper hole and the latch is as far back as it will go against the machine screws. Tighten them.



Fig 6.

Put the lever screw through it's hole from the bottom and put on the lock washer and nut and tighten it.



Fig 7.

Pull the needle out of the rubber stopper. Put the needle through the rocket pad from the bottom and carefully put the needle back through the same hole in the rubber stopper.



Fig 8.

Add a nut then the lever then another nut on top of the lever but only finger tight so it can move freely but not fall off .



Fig 9.

Make sure it is over the latch like Fig 9 **NOT** Fig 10.



Fig 10.

ROCKET PAD CALIBRATION



Fig 11.

For the initial setting adjust the bottom nut until the latch is level when touching the bottom of the lever.



Fig 12.

Place a pop bottle on the rubber stopper then hold the latch down and test how tight the lever fits over the latch. You should have to force the latch down a little to get the lever over the latch.

If you can't get the lever over the latch at all or If the lever doesn't touch the latch at all then take the pop bottle off and raise or lower the lever nuts as necessary. It might pull the stopper off the needle when you pull the bottle---slide it back on.



Fig 13.

Tie on the string and fill the pop bottle about 1/3 full of water. Snap your bicycle pump on to the needle and pump it up and Blast off!

Email Questions To: rocketpad@water-rocket-launcher.com