

# *Alternate “Ready Set Rocket” Launcher.*

Total cost was \$48.86.

## **Launcher base:**

- (2) 12” 2x4
- (1) 12” 2x10.
- (4) 2” #8 screws
- (2) 1/4” x 1-1/8” x 3-1/2” U-bolts.



- (1) 6-pack of 1/4” wing nuts.

\* Use wing nuts to tighten the U-bolts to allow you to easily loosen the compression tube to change launch angle.



## **Launcher:**

Best and cheapest for QEV and slide valve is Amazon.com.

- (1) Quick exhaust valve (part# XQ171500). All fittings 1/2” NPT.
- (1) Pneumatic slide valve (part# HSV-08). Has a male and female 1/4” NPT.



(1) Launcher tube (vertical pipe): 1/2" x 18" grey pvc (threaded on at least one end, if threaded on both ends just cut one end off).

(1) Compressed air storage tube (horizontal pipe): 1/2" x 12" cast iron nipple, threaded on each end.

(1) Pressure gauge: Part# M1002-4I with male 1/4" NPT.

(1) 1/2" to 1/4" cast iron reducer.

\* Pressure gauge- You can alternatively cap this with a 1/2" cast iron cap. However, it's nice to see the system is charged and at what pressure without having to look back at the compressor. Also good in case you might have to provide tech support to someone less mechanically inclined. Easily worth it for the \$8 to add it.

### **Assembly of QEV section:**

1. Use Teflon tape on all fittings (except launcher tube).
2. The QEV typically has an arrow pointing to the "release" connection which coincidentally will point "up". Or basically the fat end of the QEV is at the bottom.
3. The top launcher tube is hand threaded and can be removed from transport or storage so no need to "torque and tape" that connection.
4. The 1/2" x 12" cast iron nipple connects to the "A" fitting.
5. The water line fittings are 1/4" NPT so need a 1/2" to 1/4" brass bushing for the bottom of the QEV. (need 1)



6. Once that is installed then install a 1/4" male push fit connector into it. Part# PL-3005. \$2.28 (need 3)



7. For the slide valve, the male threaded end is the end you will connect to the QEV. Attach a 1/4" female push fit connector to the male end of the slide valve. Part# PL-3060. (need 1)



8. Install a 1/4" male push fit connection to the other end of the slide valve.

**Compressor connection:**

(1) 1/4" NPT female compressor connector. Part# 038-0035BF.

- Install a 1/4" male push fit connector into the compressor connector above.

**Line connections:**

(1) 1/4" x 15' roll of polytube line.

- Cut the line in half (or however you want to partition it) and connect one piece from the QEV to the slide valve and the other piece from the slide valve to the compressor connection:



\* Note to remove the line from the push fit connection you must push the connector receptacle in and then pull out the line. The more evenly you can push back the connection receptacle the easier it will pull out. Usually easier to have someone push it in by using a finger on each side because they usually cock to one side if you use one hand.

