

## Materials List for Rocket Lab

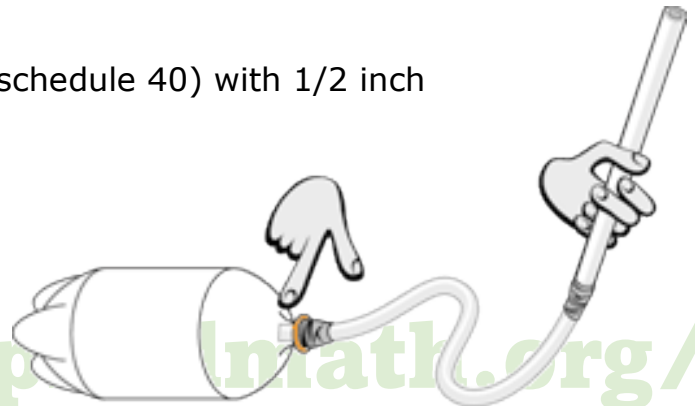
*Each Rocket Kit Requires: To be put into a Gallon-Sized Zip-Loc Bag*

- One and 1/2 sheets (1 ½) of 8 1/2" x 11" paper (can be printed on one side)
- 30 cm (1ft) length of 1/2" PVC pipe or any tube with a 1/2" diameter
- Scissors
- Clear tape
- 2 Playing Cards (or any stiff paper, such as used file folders or 3" x 5" cards)
- Markers

*Launchers – There are two different styles (Basic and WAMC Super-Duty) of launchers that you could build depending on what materials available*

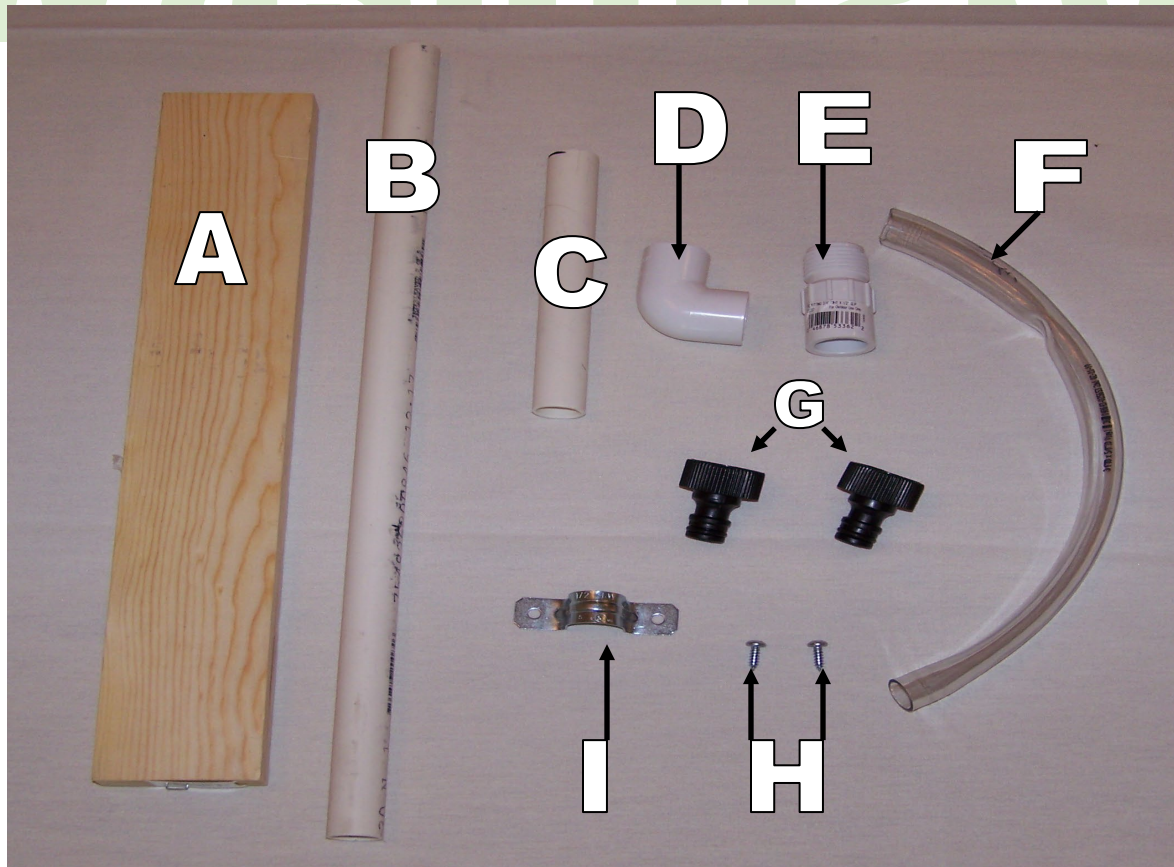
### Basic Launcher:

- 2-liter plastic bottle (only one is required for each launcher, but we strongly recommend that you make two launchers and have a couple of extra soda bottles on hand in case one fails)
- 1 meter (about 3 feet) of clear flexible vinyl tubing with 1/2 inch inner diameter and 5/8 inch outer diameter (the type of tubing doesn't matter, as long as you can tape one end to the neck of the soda bottle and the other end to the PVC pipe). Another alternative is to use a Bicycle Inner-Tube.
- Duct tape or Hose Clamp
- 60 cm (about 2 feet) of PVC pipe (schedule 40) with 1/2 inch diameter



## **WAMC Super-Duty Launcher:**

All of the parts necessary to build this launcher can be found at your local hardware store (Lowe's, Home Depot, etc.) and are fairly inexpensive to build.

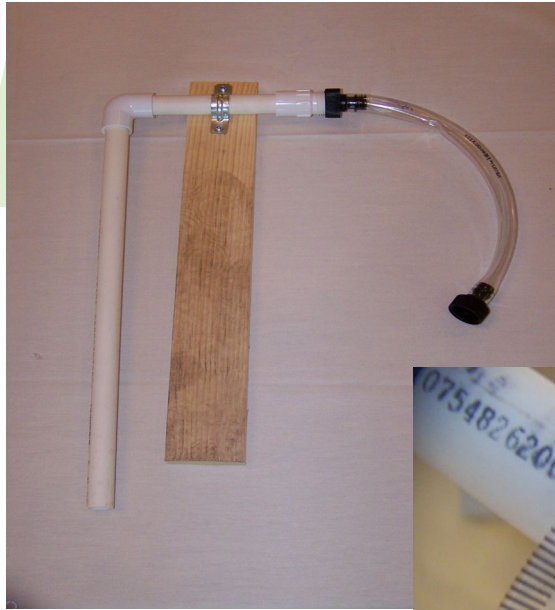


### Parts List:

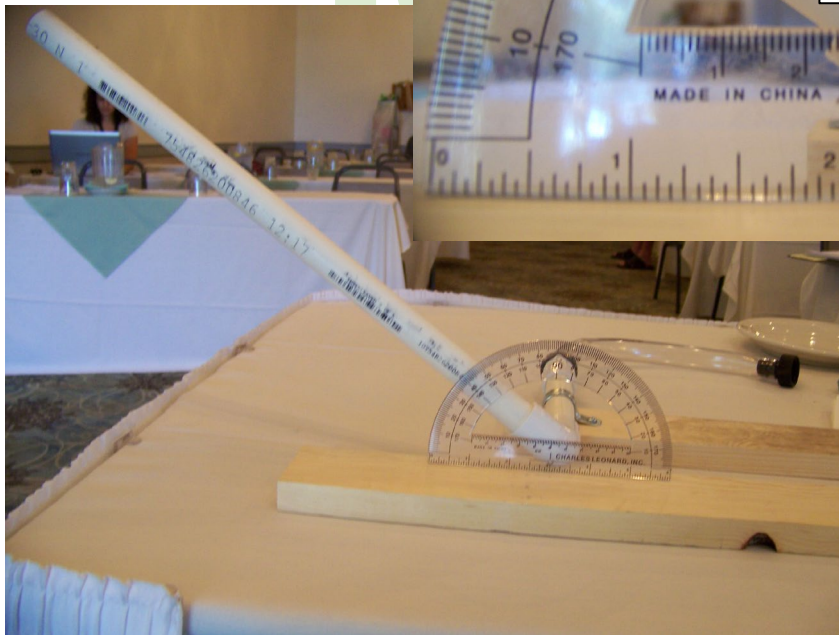
| Part Letter | Part Name                                  | Quantity |
|-------------|--|----------|
| A           | Plank (1-1/2 ft X 2-1/2" X 3/4")           | 1        |
| B           | 1-1/2 ft long 1/2" PVC                     | 1        |
| C           | 6" long 1/2" PVC                           | 1        |
| D           | 90° 1/2" PVC Elbow                         | 1        |
| E           | 3/4" MHT to 1/2" Slip Hose to Pipe Fitting | 1        |
| F           | 1ft long Vinyl Tubing (3/4" OD X 5/8" ID)  | 1        |
| G           | Male Faucet Quick Connector                | 2        |
| H           | 1/2" Zinc Screw                            | 2        |
| I           | 1/2" Hose Clamp                            | 1        |

## **WAMC Super-Duty Launcher:**

The Assembled Launcher



Measuring your  
Launch Angle



<https://wa-appliedmath.org/>