

# Rocketry Resources



## Clubs – where can I fly?

- LUNAR - Livermore Unit of National Association of Rocketry  
<http://www.lunar.org>
- AeroPAC – Flies from Black Rock, NV, three times a year. <http://www.aeropac.org/>
- Tripoli Central California – Flies once a month near Fresno, CA. <http://tccrockets.com>
- ROC – Rocketry Organization of California – Flies once a month at Lucerne Dry Lake, CA. <http://www.rocstock.org/>

## National Organizations

- National Association of Rocketry (NAR) – <http://www.nar.org/>
- Tripoli Rocketry Association (TRA) - <http://tripoli.org/>

## Retail – where can I buy?

Check at your local hobby shop! For example,

- D & J Hobbies – Campbell
- Franciscan Hobbies – San Francisco
- Hobbytown USA – Concord, Fremont, Sunnyvale

Some large retailers such as:

- Michael's – some stores carry Estes rockets kits and motors. Get a 40% off coupon from the Sunday newspaper.
- Toys'R'Us – many stores carry ready-to-fly Estes rockets and motors.

## Books

- Handbook of Model Rocketry, G Harry Stein and Bill Stein (available from <http://www.nar.org>, <http://www.questaerospace.com>, <http://www.amazon.com>, etc.)
- Model Rocket Design & Construction, Tim Van Milligan (available from <http://www.apogeerockets.com>)
- Modern High Power Rocketry 2, An Illustrated How-To Guide to High-Power Rocketry, Mark Canepa, (available from <http://www.modernhpr.com>)

## Web sites

- The Rocketry Forum (TRF) – general discussions, all levels, family friendly! <http://www.rocketryforum.com/>
- Essence's Model Rocket Reviews (EMRR) – For nearly every production kit: reviews, flight logs, motor selection charts, ROCKSIM simulation files, and much more. <http://www.rocketreviews.com/>
- Rocketry Planet – lots of great stuff. <http://www.rocketryplanet.com/>
- JimZ Rocket Plans – scanned plans and decals for classic kits. <http://www.dars.org/jimz/rp00.htm>
- Rocketry On Line (ROL) – Press releases, auctions, check out info-central. <http://www.rocketryonline.com/>

## Manufacturers

- Aerotech – kits for D through G motors, D through N motors and reloads. <http://aerotech-rocketry.com/>
- Apogee Rockets – kits, motors, books, software (ROCKSIM), and more. <http://www.apogeerockets.com>
- Estes – the original – kits and motors 1/4A through E. <http://www.estesrockets.com/>
- FlisKits – very creative kits and parts. <http://www.fliskits.com>
- LOC Precision – kits for D through M motors, parts from 29mm to 7.5". <http://www.locprecision.com>
- Mad Cow Rockets – high quality fun kits, F through J motors. <http://www.madcowrocketry.com>
- Polecat Aerospace – kits for F through M motors. <http://www.polecataerospace.com>
- Public Missiles (PML) – kits for F through M motors. <http://publicmissiles.com/>
- Quest Aerospace – another original! Kits and motors A through C. <http://www.questaerospace.com>
- Semroc – Classic kits, new parts. <http://www.semroc.com/>
- Squirrel Works – creative kits. <http://www.squirrel-works.com/>

# Frequently Asked Questions About Rocketry

## Can I fly my rocket more than once?

Short answer: YES! Hobby rockets are designed and constructed to fly over and over and over again. Long answer: Some times they fly away. Some times they get minor, repairable damage. One of our rockets has flown 73 times. We know someone that still has a rocket he built in 1973 that has flown 500 times.

## Where can I fly my rocket?

The best place to fly your rocket is with a club, like LUNAR. The club officers do all the work of arranging the use of the field with the land owner, the local fire department, and FAA (if applicable). Also, as a chartered National Association of Rocketry (NAR) section, LUNAR also carries insurance for any (extremely unlikely) untoward event. Also, flying with LUNAR is great because you get to watch everyone else's rockets, and LUNAR provides the launch equipment.

## Which motors will work in my rocket?

Most beginner model rockets can be flown on any "18mm motor", such as A8-3, B6-4, and C6-5. Expect your rocket to fly 150' on A, 300' on B, and over 600' on C motors.

## Where can I get more motors?

Check your local hobby shop first – you may find some other interesting things there! Also check Target and Toys R Us. (There's a list of local stores on the other side of this sheet.)

## How big a rocket can I build?

In "low power" rocketry, using A, B, and C motors, you can build practical rockets up about to 2.5" diameter and 3 feet long. Maximum take-off weight is about 4 ounces, with one C motor. (A rocket like that wouldn't go very high.)

## What is CA glue?

"CA" is short for "cyanoacrylate", a fancy word for Super Glue. Other glues commonly used in rocket construction include: white glue such as Elmers, yellow glue such as TiteBond, and epoxy.

## What's the launch lug for?

The little tube on the outside of the main tube (airframe) of the rocket is the launch lug. The launch lug is 1/8" inside, and fits the launch rod perfectly so the rocket slides easily. The launch lug holds the rocket upright on the launch pad, until the motor ignites and pushes the rocket skyward.

The launch rod is usually 36" long, to give the rocket enough time to accelerate to "flying speed", so the rocket's fins can take over and keep it going straight up. (Flying speed is usually about 35 miles per hour.)

## What equipment do I need to launch a rocket?

You need a launch pad and a launch controller. The launch pad is a sturdy base, with some kind of blast deflector, and a 3-foot-long 1/8" rod. The launch controller circuit is a battery connector, safety key, launch switch, 15-foot wires, and small clips. The battery is usually 6 volts (four AAs), 9 volts, or 12 volts (car battery).