

# 2012 Official Mountain District Space Derby Rules

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## **Construction**

1. Only the basic materials supplied in the official BSA kit may be used. The hanging device in the kit **must** be used. Paint and decals are allowed. No parts may be added that are not in the kit. Replacement Rubber Bands and Propellers are available through the Scout Shop. These are the only acceptable substitutions or replacement parts. Wet paint is not acceptable.
2. Do not attach numbers to the Rocket. Numbers will be assigned. This does not mean a rocket cannot be decorated with a number.
3. The nose cone (propeller assembly) **must not be glued in place**. A notch or groove must be formed in the rear of the rocket to seat the band holding dowel. The band holding dowel **must not be glued in place**. These rules allow broken rubber bands to be replaced during the race.
4. The rocket body may be no longer than 7 inches, not including the propeller.
5. There are no restrictions on the weight or design of the rocket. Rockets may be detailed in any manner as long as the rocket meets the length restrictions, are flight worthy, structurally sound and do not interfere with other rockets during the race.
6. Dry graphite powder may be used to lubricate the propeller shaft and bushing, if desired. All other forms of lubrication are prohibited on the propeller. Rubber bands may be lubricated. Lubricate rubber bands in castor oil or a glycerin/soap mixture.

## **Preflight**

1. Rockets are to be submitted to the registration table prior to the beginning of the race. Each rocket will be inspected, registered and assigned a race number. A Repair/Maintenance Hangar will be available to make any needed modifications to rockets that do not meet the official rules.
2. Once the rocket has been accepted no further adjustments may be made except in the case of mechanical failure.
3. Rockets will remain in the staging area where they will be wound and kept ready for racing.
4. Winding of rockets will be performed by electric drill and will be wound the same number of turns according to the requirements for the length of the track.

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## **Racing**

1. There will be 4 entrant categories: Tigers, Wolves, Bears and Webelos. Only one rocket per entrant will be allowed.
2. All rockets will race on each of the 4 lanes and the time will be recorded. Rockets will race in order of number assigned. Entrants will draw for their rocket number. Rocket # 001 will start on lane 1 and progress through the lanes in numerical order. The other rockets will follow likewise until all 4 rockets in the heat have raced on each lane. In like fashion Rocket #005 will start on Lane 1 and the next group will follow suit.
2. Entrants will have **Two Minutes** to report to Rocket Staging when called. Only entrants racing in the current heat are allowed in the finish zone.
3. Upon completion of the heat, "Mission Control" will remove the rocket from the Race Lane and be placed in the staging area.
4. Any and all rockets that experience a mechanical failure or do not finish will be assigned a time rounded up to the nearest second above the slowest time for that heat. All repairs must be done with "Flight Operations" observing and certifying the rockets flight worthiness. Repairs must be performed within 2 minutes.
5. Overall placement will be decided by an average of the finishing time achieved on each lane. In the event of a tie, another race to break the tie will be held.
6. All rulings by Flight Operations and Mission Control are final.

**NOTE: THERE WILL BE AN ELECTRONIC TIMING SYSTEM ON THE SPACE DERBY TRACK.**

