



# CODE SUMMARY

## MODEL ROCKETS

A code summary is a compilation of code sections related to a specific topic and does not contain any interpretations or District standards. This code summary lists sections of code pertaining to Model Rockets and puts them into simple, easy to understand language. The bold headings are intended to be straightforward and uncomplicated. Under each heading you will find the correlating code language and the reference cited. Please feel free to direct any questions to the Fire Prevention Division at (925) 838-6600.

**1. A permit is required for launching of any model rockets.**

No model rocket user shall launch any model rocket motor from any site without first securing authorization from the authority having jurisdiction. The authority having jurisdiction may require notification each time that model rockets are to be launched. (California Code of Regulations, Title 19, Division 1, Section 1025 (a))

**2. Permits will not be issued to persons under 18 years of age.**

No model rocket motors shall be sold, given, or delivered to any person under 18 years of age. (California Code of Regulations, Title 19, Division 1, Section 1027 (a))

**3. Written permission from the property owner of the proposed launch site must accompany the permit application.**

It shall be the responsibility of the model rocket user to secure permission of the owner of private lands when such land is intended to be used to launch model rockets. (California Code of Regulations, Title 19, Division 1, Section 1025 (b))

**4. Permits may be revoked at any time at the discretion of the Fire District.**

The authority having jurisdiction may immediately revoke a permit to sell model rocket motors at retail if it is found that those persons granted a permit have violated these regulations. The authority having jurisdiction may immediately revoke its authorization to use a firing area if it is found that an undue hazard exists, including, but not limited to, fire safety hazards or life safety hazards. (California Code of Regulations, Title 19, Division 1, Section 1026)

**5. All model rocket motors shall be classified by the California State Fire Marshal.**

No model rocket motors shall be stored, sold or offered for sale at retail unless such model rocket motors have been classified by the California State Fire Marshal. (California Code of Regulations, Title 19, Division 1, Section 1023)

**6. The permit holder is responsible for the safety of all participants and spectators.**

The permittee shall be responsible for the safety of all spectators and other persons connected with the launching of model rockets. (California Code of Regulations, Title 19, Division 1, Section 1028)

**7. The following requirements apply as found in NFPA 1122 (2013 Edition):**

- a. A model rocket's structural parts, including the body, nose cone, and fins, shall be made of paper, wood, or plastic and shall contain no metal parts. (4.2.1)

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- b. A model rocket shall have a means for returning it to the ground so that it can be flown again. (4.3.1)
- c. All recovery wadding used in a model rocket shall be flame-resistant. (4.3.2)
- d. A model rocket shall weigh no more than 53 oz at lift-off, including rocket propellant. (4.4.1)
- e. A model rocket shall use no more than 4.4 oz of rocket propellant. (4.4.2)
- f. A model rocket shall be launched outdoors in a cleared area, free of tall trees, power lines, buildings, and dry brush and grass (4.8)
- g. The launch site shall be at least as large as specified in Table 4.9 (4.9) (see below)
- h. For a circular area, the minimum launch site dimension shall be the diameter; and for a rectangular area, it shall be the shortest side. (4.9.1)
- i. A model rocket shall be launched from a stable launch device that provides rigid guidance until it has reached a speed adequate to ensure a safe flight path. (4.10)
- j. The launcher shall have a blast deflector device to prevent the motor exhaust from hitting the ground directly. (4.12.1)
- k. The area around a launch device shall be cleared of brown grass, dry weeds, or other easy-to-burn materials. (4.12.2)
- l. The system used to launch a model rocket shall be remotely controlled and electronically operated. (4.13.1)
- m. All persons shall remain at least 15 feet from the model rocket during ignition of a model rocket motor with an installed total impulse of 30 N-sec or less. (4.14.1)
- n. All persons shall remain at least 30 feet from the model rocket during ignition of a model rocket motor with an installed total impulse of more than 30 N-sec. (4.14.2)
- o. All people in the launch area shall be made aware of the pending model rocket launch. (4.15.1)
- p. An audible 5-second countdown to launch shall take place. (4.15.2)
- q. A model rocket shall not be launched in a wind of more than 20 mph. (4.17.1)
- r. A model rocket shall not be launched into a cloud. (4.17.2)
- s. A model rocket shall not be launched near an aircraft in flight. (4.17.3)
- t. A model rocket shall not be launched at an angle greater than 30 degrees from vertical. (4.17.4)

Table 4.9 Minimum Launch Site Dimensions

Installed Total Impulse (N-sec)	Equivalent Motor Type	Minimum Site Dimension	
		m	ft
0-1.25	¼ A and ½ A	15	50
1.26-2.50	A	30	100
2.51-5.00	B	61	200
5.01-10.00	C	122	400
10.01-20.00	D	152	500
20.01-40.00	E	305	1000
40.01-80.00	F	305	1000
80.01-160.00	2F (or 1G)	305	1000
160.01-320.00	4F (or 2G)	457	1500