

Falcon 9 version 1.0 and v1.1 in 1:200 scale

A 1:200 scale model from Acme Engineering

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Instructions version 1

This file only contains the information specific to the 1:200 model. For the assembly instructions, see the file 'Falcon 9 assembly instructions'. You can find the files in this location:

<<https://www.shapeways.com/forum/index.php?t=msg&th=14981&start=0>>

The model is scaled so it can be built with commonly available 3/4" or 19 mm tubing. This means that the scale is 1:192 instead of 1:200.

Note that I offer parts in two different scales: 1:144 and 1:200. Make sure to order parts in the correct scale!

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Versions you can build and parts you need

You can build 2 versions of the Falcon 9:

1. with a Dragon capsule, or
2. satellite launcher with the large payload fairing.

Falcon 9 version 1.0

For Falcon 9 version 1.0 you need:

1. Falcon 9 v1.0 First stage engines
2. Falcon 9 v1.0 First stage parts (this is the bottom section of the first stage)
3. Falcon 9 v1.0 Second stage fasteners (these connect the second stage to the interstage)
4. to be supplied by you: a section of 3/4" or 19 mm tubing, the length is listed in the table below

For the Dragon version you also need the Dragon capsule.

For the satellite launcher you need the large payload fairing.

Based on the photos of the CRS 1 flight, these are my estimates for the lengths of the rocket components:

(all estimates are ± 60 cm/2")

	original (m)	in 1:200 (cm)	inches
first stage (full length of the stage)	31	16,15	6,36
First stage (tubing section only: this is the full length minus the bottom section)	29,1	15,16	5,97
interstage	6,4	3,33	1,31
2nd stage	4,6	2,40	0,94
Dragon trunk	2,8	1,46	0,57
Total length of tubing	42,9	22,34	8,80

There was some variation between flights: the second F9 flight had an interstage of 7 m length, SpaceX even published a length of 8 m at one point.

Falcon 9 version 1.1

For Falcon 9 version 1.1 you need:

1. Falcon 9 v1.1 Engines and fasteners (this is the first stage engines set plus the fasteners that connect the second stage to the interstage)
2. to be supplied by you: a section of 3/4" or 19 mm tubing, the length is listed in the table below

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For the Dragon version you also need the Dragon capsule.

For the satellite launcher you need the large payload fairing.

Based on photos of the SES 8 flight, these are my estimates for the lengths of the rocket components.

(all estimates are ± 1 m)

	original (m)	in 1:200 (cm)	inches
first stage (full length of the stage)	41	21,35	8,41
First stage (tubing section only: this is the full length minus the bottom section)	40,75	21,22	8,36
interstage	6	3,13	1,23
2nd stage	8,3	4,32	1,70
Dragon trunk	2,8	1,46	0,57
Total length of tubing for Dragon version	57,85	30,13	11,86
Total length of tubing for satellite launcher	55,05	28,67	11,29