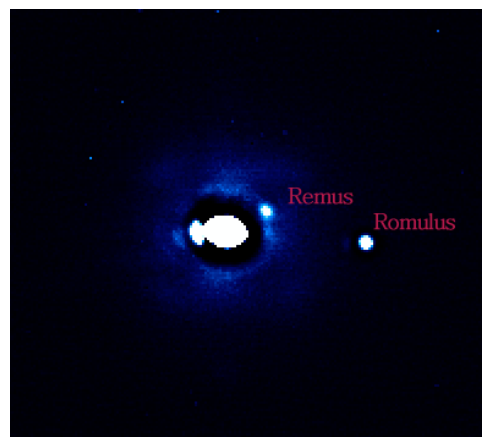


Sylvia (87)



Physical characteristics	
Dimensions	(384×262×232)±10 km ^{[1][2]} 286 km (mean) 385×265×230 ± 10 km ^[3]
Mass	1.478±0.006×10 ¹⁹ kg ^{[1][3]}
Mean density	1.2 ± 0.1 g/cm ³ ^{[1][3]}
Surface gravity	0.0729 m/s ²
Escape velocity	0.1379 km/s
Rotation period	0.2160 d (5.183642 h) ^{[4][5]}
Albedo	0.0435 ^[6]
Temperature	~151 K max: 223 K (−52°C)
Spectral type	X ^[7]
Absolute magnitude (<i>H</i>)	6.94

From Wikipedia https://en.wikipedia.org/wiki/87_Sylvia
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Welcome to International NodeBots day 2015!

Your challenge is to build a NodeRover to explore the asteroid Sylvia 87.

Here are some ideas for programming your bot:

- Display the temperature on the digit display
- Display the light reading on the digit display
- Use buttons to toggle what is displayed
- Beep when an obstacle is detected using the ultrasonic sensor
- Program your bot to drive around an area autonomously, using the ultrasonic sensor to avoid obstacles

Rover Build instructions:
<https://t.co/x3j8m10ddU>

Code samples:
<https://gist.github.com/AnnaGerber/e5f897b745e5f96da463>

87 Sylvia is one of the largest main-belt asteroids. It is a member of the Cybele group located beyond the core of the belt (see minor-planet groups). Sylvia is the first asteroid known to possess more than one moon.

Sylvia is very dark in color and probably has a very primitive composition. The discovery of its moons made possible an accurate measurement of the asteroid's mass and density. Its density was found to be very low (around 1.2 times the density of water), indicating that the asteroid is porous to very porous; from 25% to as much as 60% of it may be empty space, depending on the details of its composition. However, the mineralogy of the X-type asteroids is not known well enough to constrain this further. Either way, this suggests a loose rubble pile structure. Sylvia is also a fairly fast rotator, turning about its axis every 5.18 hours. Sylvia has two orbiting satellites; Romulus and Remus.