

Code samples: https://gist.github.com/AnnaGerber/e5f897b7 45e5f96da463

Rover Build instructions: <a href="https://t.co/x3]8ml0ddU

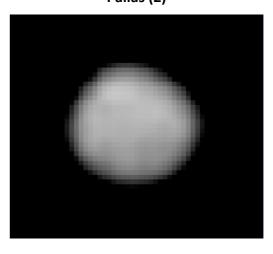
autonomously, using the ultrasonic sensor to avoid obstacles

- ultrasonic sensor
 Program your bot to drive around an area
- Beep when an obstacle is detected using the
 - Use buttons to toggle what is displayed
- Display the light reading on the digit display
- Here are some ideas for programming your bot:
 Display the temperature on the digit display

Your challenge is to build a NodeRover to explore the asteroid Pallas 2.

Welcome to International NodeBots day 2015!

Pallas (2)



Pallas has unusual dynamic parameters for such a large body. Its orbit is highly inclined and somewhat eccentric, despite being at the same distance from the Sun as the central part of the asteroid belt. Furthermore, its axial tilt is very high. This means that, every Palladian summer and winter, large parts of the surface are in constant sunlight or constant darkness for a time on the order of an Earth year.

The Palladian surface appears to be a silicate material; the surface spectrum and estimated density resemble carbonaceous chondrite meteorites. The Palladian orbit, at 34.8°, is unusually highly inclined to the plane of the asteroid belt, and the orbital eccentricity is nearly as large as that of Pluto.

Pallas, minor-planet designation 2 Pallas, is the second asteroid to have been discovered (after Ceres), and it is one of the largest asteroids in the Solar System. It is estimated to comprise 7% of the mass of the asteroid belt, and its diameter of 544 kilometres (338 mi) is slightly larger than that of 4 Vesta. It is 10–30% less massive than Vesta, placing it third among the asteroids. It is likely a remnant protoplanet.

582×556×500±18 km^[6] 544 km (<u>mean</u>)¹⁴ 937000 km^{2[7]} Surface area Volume 84700000 km³[7] (2.11±0.26)×10²⁰ kg^[8] ≈2.8 g/cm^{3/6} Mean density ≈0.18 m/s² / .018g Surface gravity ≈0.32 km/s **Rotation period** 0.32555 d (7.8132 h)^[4] Equatorial 65 m/s^[7] rotation velocity likely 78°±13° [10] Axial tilt Albedo 0.159 (geometric)[11] ≈164 <u>K</u> max: ≈265 K (–8 °C) Temperature B-type asteroid[12][4 6.49^[13] to 10.65 **Apparent** magnitude magnitude (H) Angular diameter 0.629" to 0.171"[14]

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