Welcome to International NodeBots day 2015!

Your challenge is to build a NodeRover to explore the asteroid Metis 9.

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/x3l8ml0ddU

Code samples:
https://gist.github.com/AnnaGerber/e5f8972b7456f96da463



# Metis (9)



| Physical characteristics | |
|---|---|
| **Dimensions** | 222×182×130 km[3]<br>235×195×140 km[4][5][6]<br>190 km (Dunham)[1] |
| **Mass** | (1.47±0.20)×10$^{19}$ kg[3] |
| **Mean density** | 4.12±1.33 g/cm$^3$[3] |
| **Surface gravity** | ~0.070 m/s$^2$ |
| **Escape velocity** | ~0.11 km/s |
| **Rotation period** | 0.2116 d (5.079 h)[1] |
| **Albedo** | 0.118 (geometric)[1] |
| **Temperature** | ~173 K<br>*max:* 282 K (+9 °C)[7] |
| **Spectral type** | S-type[8] |
| **Apparent magnitude** | 8.1[9] to 11.83 |
| **Absolute magnitude *(H)*** | 6.28[1] |
| **Angular diameter** | 0.23" to 0.071" |

From Wikipedia https://en.wikipedia.org/wiki/9_Metis
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9 Metis is one of the larger main-belt asteroids. It is composed of silicates and metallic nickel-iron, and may be the core remnant of a large asteroid that was destroyed by an ancient collision. Metis is estimated to contain just under half a percent of the total mass of the asteroid belt. Metis' direction of rotation is unknown at present, due to ambiguous data.

The Meridian surface composition has been estimated as 30-40% metal-bearing olivine and 60-70% Ni-Fe metal. Metis appears to be more dense than most other asteroids with a diameter close to 200 km. This may support the theory that Metis is the core remnant of a large evolved asteroid for which 90% of the original mass has been lost.