Welcome to International NodeBots day 2015!

Your challenge is to build a NodeRover to explore the asteroid Herculina 532.

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/e5f897b7457e5f96da463

Herculina (532)

Physical characteristics	
Dimensions	222.4 ± 4.2 km (IRAS)[1]
Mass	~2.29×10^{19}kg [2]
Mean density	~4 g/cm^3[2]
Surface gravity	*unknown*
Escape velocity	*unknown*
Rotation period	9.404951 h[1]
Albedo	0.16[1]
Temperature	*unknown*
Spectral type	S[1]
Apparent magnitude	8.82[3] to 11.99
Absolute magnitude *(H)*	5.81[1]
Angular diameter	0.228" to 0.073"

From Wikipedia https://en.wikipedia.org/wiki/532_Herculina

532 Herculina (/hɜrkjʊˈlaɪnə/ hur-kew-lŷ-nə) is a large asteroid, with a diameter of around 225 km.

Herculina is one of the larger members of the main asteroid belt. It is believed to rank among the top 20 in size, but the exact dimensions of many large asteroids are still uncertain. The current estimate for its mass would rank it close to the top 10.

It has often been noted for its complex lightcurves, which made determination of its shape and rotation somewhat difficult. Recent (2002) modelling of photometric data indicates that Herculina is not spherical, but a blocky shape not unlike a battered cuboid - or, as the analysis described it, it "resembles a toaster".