

65 Cybele is one of the largest asteroids in the Solar System and is located in the outer asteroid belt. It gives its name to the Cybele family of X-type asteroid, meaning that it is dark in color and carbonaceous in composition.

Examination of the asteroid's infrared spectrum shows an absorption feature that is similar to the spectrum of 24 Themis. This can be explained by the presence of water ice. The asteroid may be covered in a layer of fine silicate dust mixed with small amounts of water-ice and organic solids.

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

Rover Build instructions:  
<https://t.co/x3j8mlddU>

Here are some ideas for programming your bot:

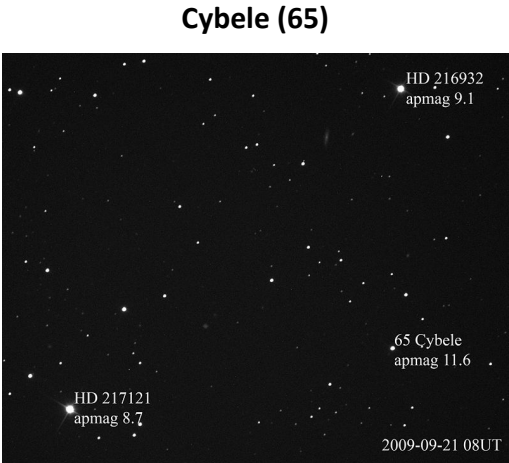
- Display the temperature on the digit display
- Display the light reading on the digit display
- Use buttons to toggle what is displayed
- Beep when an obstacle is detected using the ultrasonic sensor
- Program your bot to drive around an area autonomously, using the ultrasonic sensor to avoid obstacles

Your challenge is to build a NodeRover to explore the asteroid Cybele 65.

Welcome to International NodeBots day 2015!

Physical characteristics	
<b>Dimensions</b>	302×290×232 km <sup>[a]</sup> <div>273.0±11.9 km<sup>[a]</sup><div>237.3 km IRAS<sup>[1]</sup></div></div>
<b>Mass</b>	1.78×10 <sup>19</sup> kg <sup>[a]</sup>
<b>Mean density</b>	0.99±0.20 g/cm <sup>3[a]</sup>
<b>Surface gravity</b>	0.0663 m/s²
<b>Escape velocity</b>	0.1255 km/s
<b>Rotation period</b>	4.041 h <sup>[1]</sup>
<b>Albedo</b>	0.050 ± 0.005 <sup>[a]</sup> <div>0.071<sup>[1]</sup></div>
<b>Temperature</b>	~150 K
<b>Spectral type</b>	Xc/P <sup>[1]</sup>
<b>Apparent magnitude</b>	10.67 to 13.64
<b>Absolute magnitude (H)</b>	6.62 <sup>[1]</sup>

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Cybele (65)