

# IceCube: A Totally Self-Contained Multi-Directional Robotic Sphere

Tech ID: 19900 / UC Case 2010-032-0

## TECHNOLOGY DESCRIPTION

This is an amazing new autonomous robotic platform, realized as a sealed sphere. Within the sphere is a novel, new drive system, utilizing off-set gyroscopic motors. It is driven by an advanced control scheme that allows the sphere to accelerate, stop, ascend, and descend inclines and change directions on a dime, with no visible moving parts.

## APPLICATIONS

Not only is this new robotic platform fascinating to watch and play with, it provides a unique platform for more serious applications such as autonomous visual and chemical sensing, using optical windows and sensor ports built into the external spherical enclosure. Unique applications in both the toy, sensing, and surveillance applications are possible, as is the possible Hollywood cameo.

See illustration below:

## CONTACT

University of California, San Diego  
Office of Innovation and  
Commercialization  
[innovation@ucsd.edu](mailto:innovation@ucsd.edu)  
tel: 858.534.5815.



## OTHER INFORMATION

### CATEGORIZED AS

- ▶ **Engineering**
- ▶ Robotics and Automation

### RELATED CASES

2010-032-0

## INTELLECTUAL PROPERTY INFO

This technology is patent pending with licensing rights available.

## PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	10,611,019	04/07/2020	2010-032
United States Of America	Issued Patent	9,902,058	02/27/2018	2010-032
United States Of America	Issued Patent	9,757,855	09/12/2017	2010-032
United States Of America	Issued Patent	9,020,639	04/28/2015	2010-032

