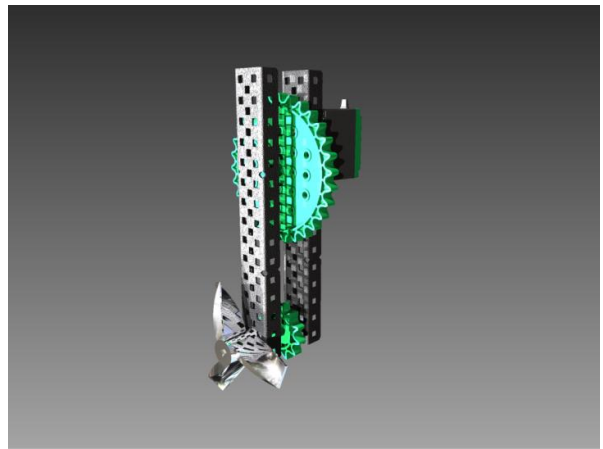


# Oil Mapper v.1

The oil mapper is designed to map and update the perimeter and area of an oil spill quickly. The actual mapping would be done by many of these robots working together, sending data to a central computer. The oil detection is accomplished using a sensor from GE to detect oil in the water that it comes in contact with.

The main feature of this robot is its ability to travel omni-directionally. There are four propeller mounts, each containing a 393 motor, a custom propeller, and an 8:3(speed) gearbox. The custom propeller was made using the loft command and circular pattern. With its moving capabilities, the oil mapper *could* maintain a course while aiming its solar panel at the sun.



The chassis is roughly a 12.5x12 in box made using standard VEX aluminum c-channels. The solar panel and Cortex are mounted at the top to minimize water damage. The chassis is attached to a plastic flotation device which is a 21x21x4 rectangular torus. The torus was modeled with the sweep command on a circle. The chassis was made very minimally to help its floating capabilities and speed.

