



# ***The Black Mantas***

Carl Hayden Community High School

The Black Mantas

3333 W. Roosevelt St.

**TEAM MEMBERS:**

**HUGO MARTINEZ**

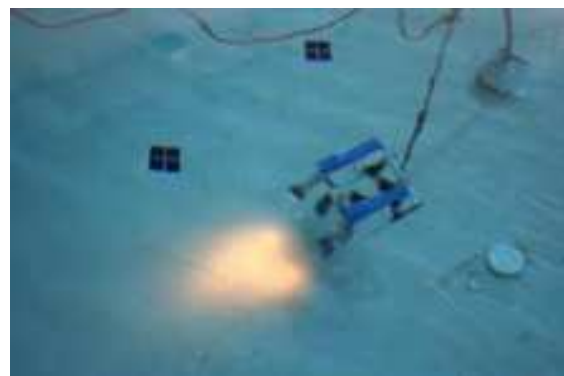
**LISA HARRIS**

**AUTHORS OF THE**

**REPORT:**

**LISA HARRIS**

**HUGO MARTINEZ**



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# ABSTRACT

We built our robot, The Black Manta, for the purpose of the NURC National Underwater Robotics Challenge. With using little money we were able to accomplish a well working ROV. We decided to use the small square shape so that we would be able to move in and around the submarine easier.

Using the VEX operator allows us to control the speed of the thrusters. Were also able to operate our robot underwater wirelessly. For our lights and camera we used the Falcon Housing and to connect everything we used speaker wire and a 50ft extension cord.

We kept our operating system off board out of the water. Our theory is, "Smaller is always better".

# TEAM MEMBERS

HUGO MARTINEZ

LISA HARRIS



Two seniors at Carl Hayden Community High School enrolled in the Marine Science Program. With no robot experience and hardly any money we entered the National Underwater Robotics Challenge.

# COSTS

ITEM	PRICE
<b>Thrusters</b>	<b>\$80</b> \$20 ea X 4
<b>Lights</b>	<b>\$15</b> \$7.50ea X 2
<b>Camera</b>	<b>\$60</b>
<b>Wiring</b>	<b>\$20</b> 50 ft extension cord. 200 ft speaker wire.
<b>PVC pipe</b>	<b>\$10</b>
<b>Falcon Housing</b>	<b>\$25</b>

# ACKNOWLEDGMENTS

Team 842 Falcon Robotics  
Scuba Sciences