



# SPEC SHEET MANATEE

**JESUIT ROBOTICS  
MATE 2022**  
Explorer Class

## Rovotics Company Info

**Jesuit High School Robotics**  
Carmichael, CA USA

**Returning Team** and 14 Time  
MATE Competition Participants

**Distance Traveled:** 673 km

**Website:** [jesuitrobotics.com](http://jesuitrobotics.com)



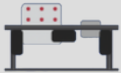
## Special Features



**Digital Cameras**  
High quality low latency video feed for clear operation.



**ROS Architecture**  
Modular and reliable Robot Operating System.



**Modular Frame & Buoyancy**  
Manatee can quickly adapt to any operation situation.



**Vampire Squid**  
GO-BGC Float collects data at varying ocean depths.

## Safety Features



**Safety Sensing**  
Multiple internal environmental sensors help prevent leaks.



**One Click On And Off**  
Ensure Deck Crew safety with easy shutdown of ROV



**Advanced TCU**  
Access voltage, ROV status, and other data easily and safely

## Team Members

**Freshmen:**

'25 Mark Weden\*, Mechanical  
'25 Ethan Bullard\*, Mechanical  
'25 Douglas Crone\*, Electronics

**Sophomores:**

'24 James Randall, Software  
'24 Jonah Reynolds, Safety Officer  
'24 Adon Sharp, Software  
'24 Alex Bertran\*, Software  
'24 Nathan Peterson\*, Software

**Juniors:**

'23 Daniel Kriefels, Mechanical  
'23 Timothy Monroe, Mechanical  
'23 Michael Solis, Electronics

**Seniors:**

'22 Charlie Diaz, CEO  
'22 Nick Venegas, Electronics  
'22 Taylor Vicente, CO  
(Compliance Officer)

\*New Members

## COACHES

Jay Isaacs  
Cheryl Kiyama  
Steve Kiyama  
Marcus Grindstaff  
Michael Sharp  
Andrew Grindstaff



## ROV Quick Specs

### Dimensions:

Length....53 cm

Width.....60 cm

Height....45 cm

**Weight.....** 13.8 kg

**Total Cost....**\$5,813.05

**Design & Build....**3,850 hours



Jesuit Robotics Team Members (see right column for member names and roles)



Manatee was created by a team of community focused students to undertake the UN Sustainable Development goals and achieve progress throughout the Decade of Ocean Science for Sustainable Development.