

# Coordinate System

## Global Frame

We propose the global frame to be such that the origin is relative to the pinger, and yaw is relative to magnetic north. Pitch and Roll are relative to the gravity vector.

## Axes

- X+ - front of the sub
- Y+ - left of the sub
- Z+ - above the sub

## Rotations

- Yaw+ - Counterclockwise around Z+ axis (this is opposite of magnetic) (Yaw **Left** positive)
- Roll+ - Counterclockwise around X+ axis (Roll **Right** is positive)
- Pitch+ - Counterclockwise around Y+ axis (Pitch **Down** is positive)

From:

<http://robosub-old.eecs.wsu.edu/wiki/> - **Palouse RoboSub Technical Documentation**

Permanent link:

[http://robosub-old.eecs.wsu.edu/wiki/cs/coord\\_system/start?rev=1479269667](http://robosub-old.eecs.wsu.edu/wiki/cs/coord_system/start?rev=1479269667)



Last update: **2016/11/15 20:14**