Controls
AUV IIT Kanpur

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1 Week 1

1. Read about Dynamic Reconfiguration and completed its tutorials and how to implement it in our exisitng code.
2. Learned about PID, its working algorithm, its applications and implementations.

2 Week 2

1. Ran all the sensors like cameras, pressure sensors and imu.
2. Changed system permissions of camera for effective working.
3. Made the GUI functional to give us direct control over thrusters.

3 Week 3

1. Maintained the documentation on the repository. $https://github.com/Suryansh470/AUVWiki/tree/p$
$request-demo$
2. Understood the existing code and also conducted various dry runs to understand its flaws.
3. Started making changes in motion library, starting from turning motion. Modified its server which was implemented through action library and also worked on a client for testing purposes.
4. Dynamic reconfiguration and PID were also implemented and tested.

4 Week 4

1. Other motion servers of motions like forward, sideward and upward were also modified and corrected and a testing client was also maintained for them.
2. The code was updated on the auv2017 repository. $https://github.com/Suryansh470/auv2017/tree/mo$
3. Various dry tests were conducted to eliminate minor errors and also to check the GUI of dynamic reconfiguration.
4. Besides working on motion library, we moved to the task handler layer and also sterted understanding the code of the first task i.e. line task.