ABSTRACT

On the surface of earth which 2/3 parts is covered by the ocean. The ocean is used for science experiments, transportation, and economy, even military. One of the device that is used is submarine. Submarine works to observe life forms inside the ocean and as a means of defence of a country. To support those activities there needs continual study and futher research about submarines.

This final project will create a submarine that could stay stable on certain depths and move forward. PID (Proportional Integral Derivative) control that is used in this submarine robot will function to maintain position on certain depths and control the moving speed. To read the depth, pressure sensor MPX2100ASX that works based on hydrostatic pressure will be used.

Submarine robot that could maintain its depth position in 187 mm, 338 mm and 339 mm and move according to the given algorithm is expected outcome of the final project.

Keywords **:** *submarine robot, PID method, depth control, pressure sensor.*