Underwater Vehicle " Poseidon”

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At the moment, monitoring and control of underwater wellhead systems of oil production is carried out with the help of sensors and a special ship, on board of which there is an underwater vehicle that is lowered into the water to inspect the well. Monitoring becomes difficult if the water surface is covered with ice or weather conditions do not allow the equipment to work in the open sea. These problems can be solved by creating an autonomous device that will be under water and monitor wells constantly, regardless of weather conditions. We offer the development and creation of a working copy of a small uninhabited underwater vehicle for operations at a depth of up to 100 meters, capable of operating in the conditions of underwater wellhead systems of oil and gas production. To achieve this goal, we reviewed of the underwater vehicles analogs and overview of problems solved with the help of underwater vehicles. Using this information, we development of the housing design and developed hermetic drives and an underwater wireless charger. We wrote the command interpreter firmware. Robot launching and monitor testing on a simulated pipeline stand. In the process of working on our project, we have implemented all the tasks set. We have created a small-sized autonomous underwater vehicle for monitoring and controlling underwater wellhead oil and gas systems, and launched it at a depth of 1 meter. For the full operation of the device within the planned functions, it is necessary to perform the second and third stages of launching the AUV.