Killing the Kill Cord

Reece Williams

rw11g12@soton.ac.uk

Supervisor: Dr Alex Weddell

Problem:

Taking control of a powerful boat requires no necessary training, and therefore any member of the public can go out and buy a boat with no knowledge of the dangers they can present. One major risk to the driver is that for any reason they can lose control of the vessel and be thrown overboard. In the past this has led to catastrophic disasters, including death. At the present moment a system is in place in which the operator of the boat has to wear a cord known as the kill cord. Attached to both the controls and the driver, it acts in a similar way to a proximity sensor whereby the engine emergency cut out occurs if the driver moves away from the controls. Unfortunately this can be unpopular with the public as it requires wearing a physical device and therefore can be a nuisance at times such as needing to move away from the engine or switching drivers. Failures have also occurred in the past were the cable has snapped due to environmental or production issues.

Intended Solution:

By eliminating the need for any physical aspect to be attached to the operator it eliminates the human error leading to greater safety. This would be intended by means of sensors on the steering wheel and throttle. Upon release of either the steering wheel and/or throttle the system would make the judgement on whether to turn off the ignition. Other factors such as speed and water conditions may be taken into account to assess the situation. Extra hardware can be tested such as proximity detectors.

Outcome:

Completion of the project would consist of a physical model demonstrating operation.