

GREEN LIGHT FOR LAUNCH SAFETY

Paul Kerman's traffic light solution aims to prevent potential runway incursions at Lincolnshire GC

AT LINCOLNSHIRE Gliding Club we share access to our airfield with a number of other users, principally a model flying club. This means that there is the potential for runway incursions during take-off, launch failure and landing. At times we have to stop launches and send a driver down to the intersection to move cars to a safer area. We have long wished for a way to control vehicles remotely, which is why I invented a new launch control system that triggers traffic lights and controls signalling to the winch driver.

My background is in computer science and electronics, so I devised a project to develop control software and robust hardware for the harsh environment of a gliding club. For those in the know, it's based on an AVR micro-controller and an 868MHz LoRa IoT module. For those baffled by technical details, there's a wireless connection between the traffic lights, a remote monitor in the winch, and the launch controller. The traffic lights can be put on in advance of a launch, or will come on when the "take up slack" signal is issued. The lights remain on for a time after "all out" in case of launch failure or the cable dropping across the runway.

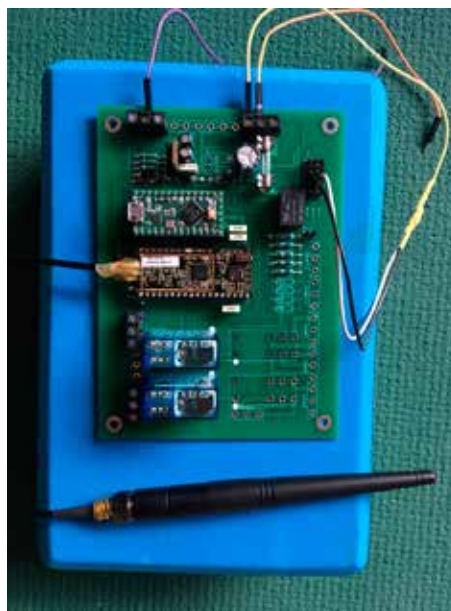
Phase two is to add in a set of lights at a second intersection, and ultimately to integrate it with a pilot and glider logging system. Other gliding sites facing similar concerns about traffic crossing their runway or interfering with launches can contact me for more information. The only requirement is line of sight between the devices, with a range of up to 10 miles!



Traffic lights connect to winch and launch point



The button box at launch point



The circuit board



Winch driver's remote monitor

■ **THE BGA COMMENTS:** Anyone using a helpful light system like this is advised to ensure that they also use adequate signage that, as well as ensuring drivers understand the hazard, also explains what the light signals mean. The launching team must continue to carefully check for potential hazards before commencing a launch.