

COUNTER-DRONE TECHNOLOGY TO DETECT, IDENTIFY, AND STOP DRONES NEAR CRITICAL CIVIL INFRASTRUCTURE



Saab is a world-leading defense and security company: global in scale, with a strong local presence. Since Saab was started, we have strived to keep society and people safe. It is a basic human need to feel safe and, as we see it, a human right. Through systems and solutions that increase security, we can make this possible.

One of Saab's business areas is surveillance & sensor systems for public security. In particular, drones introduce new threats to critical civil infrastructure, e.g. airports and prisons. There are many alternative technologies for the drone monitoring, detection and identification ranging from very complex radars to more inexpensive camera systems. In many applications, e.g., in rural airports and in prisons, the cost of complex systems, such as radars, can become too high. Hence, innovative affordable systems are of high demand. One crucial feature is automation or autonomy of the system. Current users and operator cannot handle too many false alarms of birds or so. In different applications, requirements are somewhat different. For instance, airports will be interested in fairly narrow surveillance sectors with longer range, whereas prisons will be interested more in a 360 degree dome with short range. A cost-efficient solutions would be applicable for a wide range of different applications.

The knowledge of an approaching drone is extremely valuable. Sometimes, however, it is not enough but countermeasures to neutralize the drone are needed. At the moment, efficient, safe and affordable countermeasures are not available.

At this time, we are seeking for a solution that includes costs efficient identification and classification of drones approaching critical areas, and a system to neutralize the drones. High level of reliability is the key criteria for the success of such a system. Image recognition is a strong candidate for such a detection but other technologies can exist as well. What are the key building blocks of such a system? How is the system operated, and what are the key functionalities?

The results of this project can serve as the basis for new product creation for Saab's business in public security.

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