READY TO PROVE YOUR METTLE?

CHALLENGE OF WITS IS BACK!
Think you have what it takes to design, develop and defend? To find out, solve a series of challenges crafted by Singapore's defence technology experts!

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DESIGN. DEVELOP. DEFEND.

CHALLENGE 1: DSTA
COMMAND, CONTROL AND COMMUNICATIONS

In DSTA, we built a C3 system to track drones and to ensure drones fly within the permitted height limit. We use GPS positioning to determine the height of drones in flight. As there are many things that can degrade the accuracy of GPS positioning (e.g. satellite signals being reflected off buildings), we need to add a buffer on top of the permitted height limit to ensure that drones flying over the height limit are correctly identified as errant drones.

Given that the GPS height positioning accuracy is 13m at 95% confidence and the error mean is 0, using Confidence Interval Formula to solve this question, what buffer would you recommend to have a false positive rate of 0.15%?

DSTA
Defence Science &
Technology Agency

CSIT
Centre for Strategic
Infocomm Technologies

DSO
NATIONAL
LABORATORIES

DSTA is a top-notch technology organisation that drives innovation and delivers state-of-the-art capabilities to make the SAF a formidable fighting force.

www.dsta.gov.sg

The Centre for Strategic Infocomm Technologies (CSIT) is a technical agency that harnesses cutting-edge digital technologies to support missions such as cyber defence, counter terrorism and counter hostile information operations.

www.csit.gov.sg

DSO is Singapore's largest defence research and development (R&D) organisation that develops critical and emerging technological solutions for national security in various scientific fields.

www.dso.org.sg

DTCareers.gov.sg/challenge