

Student Develops Unmanned Aerial Vehicle

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YOGYAKARTA - Student of UGM joined research team, Flying Object Research Center (FORCE), have developed Unmanned Aerial Vehicle (UAV) technology. The unmanned vehicle named as 'camar biru' have tried first flight in Grha Sabha Pramana for 10 minutes. The mini vehicle measuring 120 cm in length weighing 4 kilogram was flying circulating UGM campus.

Interestingly, the vehicle is not controlled by a remote control as it flies autonomously. "Only when making take-off and landing it is operated by the remote control," said Damar Satria Guntoro, mechanical engineering student class of 2011 on Wednesday (25/9).

The vehicle that has been developed for two years costs IDR 25 millions.

Initially, they had used fibre for the body material, however, it was too heavy it could not fly. A year later they uses composite and wet wood as these were lighter. The body and wings have used local material, but the electronic parts and remote control were still imported.

“We developed the softwares by ourselves,” he added.

He explained that the vehicle can fly autonomously using sensor, following aerial track based on GPS coordinates. Software of vehicle control named as mission planner ugm uses microsoft visual c plus-plus software. “This program can monitor position and orientation of the vehicle and battery condition,” he said.

Dr. Gesang Nugroho, supervising lecturer, said ‘Camar Biru’ uses controller, sensor, telemetry system so it can fly autonomously. It can fly at a 8 kilometer distance at a speed of 60 km/jam. Also, it can transmit live video, producing aerial map from photo mosaic and dropping payload in a certain area.

The lecturer in mechanical engineering added that the UAV is made for purposes in traffic, disaster area monitoring, volcanoes, plantation, border area and sea patrol,

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