Quetzal-1

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About the Project

• 1U CubeSat developed by Universidad del Valle de Guatemala (UVG) selected as the winner of the second round of the KiboCUBE programme in 2017.

• Mission: To design, develop and operate a CubeSat-class satellite to test a multispectral sensor prototype, opening the field of space science & technology in Guatemala, developing the country’s human capital, and enabling the independent acquisition of remote sensing data for natural resource management.
The Team

~100 persons (undergraduate students, faculty, alumni, external advisors)
Design Iterations

2014

2015

2016

2017

Winner of the second round of the KiboCUBE programme

2018

Flight Model
Handed-over to JAXA in December 2019
Launch to the ISS
SpaceX CRS-20 March 7, 2020

Quetzal-1 travels on board Dragon capsule
- Deployment from the ISS: April 28, 2020
- Currently in operation. Almost 85,000 beacons received from the satellite thus far.

Images: NASA, JAXA
How participating in the KiboCUBE programme changed the project...
From a dream of a small group of people... …to an historical achievement of a small country
Developing capacities
Developing capacities

Payload (integration in UVG)

Structure (UVG)

Communications (purchased)

On board computer (purchased)

Attitude Determination and Passive Control System (UVG)

Payload (integration in UVG)

Electrical Power System (UVG)

Command & Data Handling (UVG)

Antenna Deployment System (UVG)
Developing capacities: test rigs, tools, equipment
Partnerships and sponsors
Quetzal-1

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