

## **Project Update: March 2016**

In the last time I wrote (November 2015), we had already built our first UAS, and we were planning to bring one staff member of Grande Sertão Veredas National Park (GSVNP) to our headquarters in Atibaia, so she could follow the whole process of building and testing the second one.

We brought the biologist Laura Valle França, from GSVNP in the second week of March 2016. She helped us to finish the building of another two UAS (the original project was for two UAS, but we were able to buy a third one thanks to a reallocation of resources). Furthermore, we taught her about the basic functioning of the equipment and gave her lessons in a flight simulator.

We now have three UAS, almost fully operational. They are not ready yet because we detected a problem with the stock motor of the model airplane. It worked well in the first flight tests, but it did not have enough torque when we flew the plane with dummy weights simulating the payload (cameras). For this reason, we decided to upgrade the motors and to use only flight action cameras, at least for now.

Besides this minor problem with the motor, we had an unexpected delay in our schedule because of the unusual rainy season, with rains above average. This precluded flights for most of January and February, and is the reason why we brought Laura only in March, and also for the delay in detecting the problem with the motor.

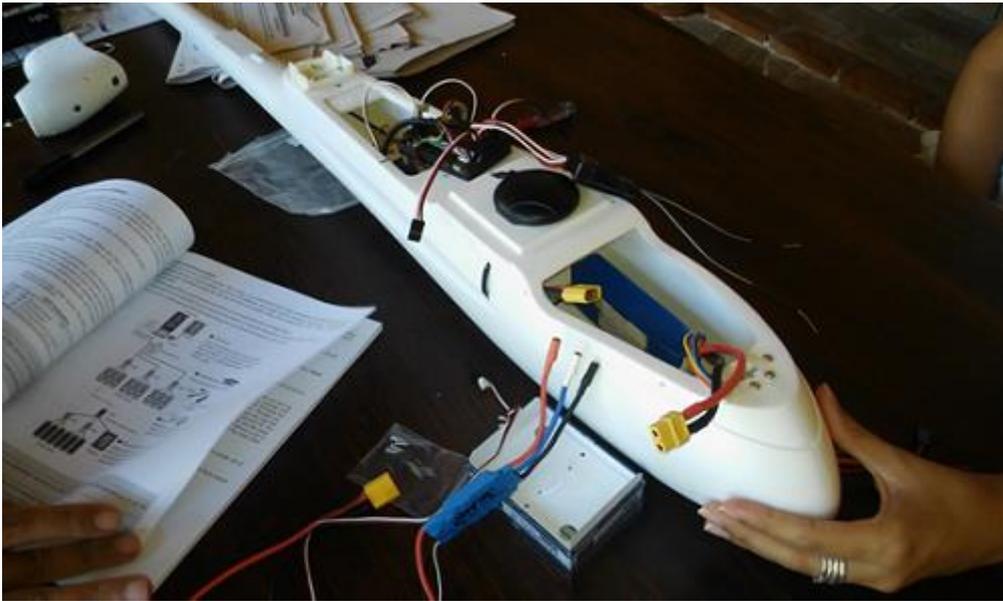
We intend to go to GSVNP in April. Pretty much the only pendency is to solve the motor issue and conduct a few additional tests. However, we note that the date will depend on fitting the agendas of our team. This is because our pilot, Eduardo Machado, is a volunteer, and he must be available for our first incursion to the park. Although the team members are having flight lessons in order to be able to fly independently in the near future, we decided that the first mission should necessarily be led by Eduardo. This will minimize risk of failure, and is a much deserved reward for Eduardo's hard work and free sharing of time and expertise.



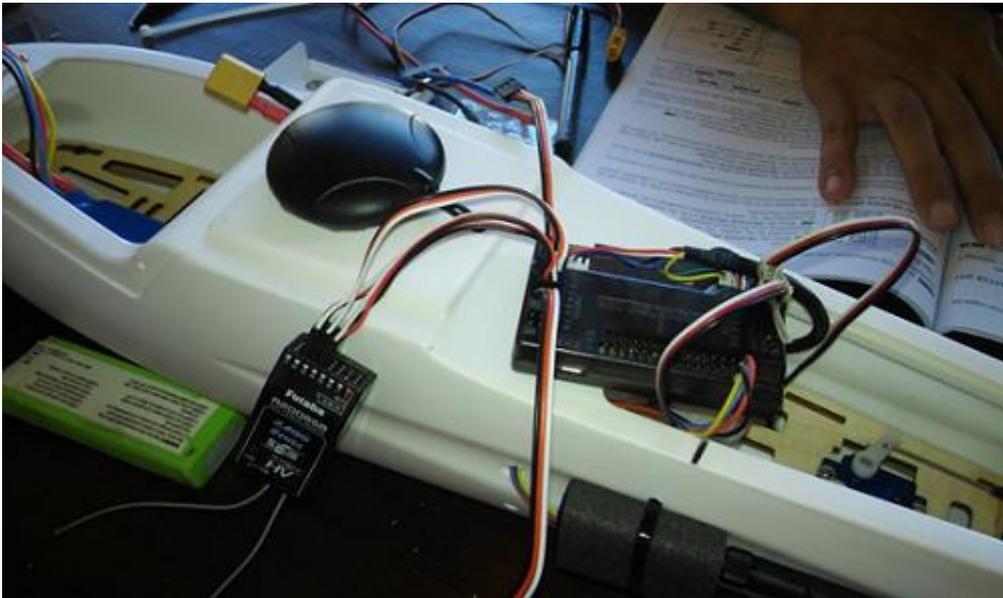
Laura Valle França from Grande Sertão Veredas National Park, helping Eduardo Machado to assemble a new UAS in Atibaia/SP, March 2016



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Assembling the UAS



Installing the autopilot, GPS and telemetry



Preflight check with Eduardo Machado and Elildo Carvalho Jr



One of our UAS with Eduardo Machado and Elildo Carvalho Jr



One of our UAS, ready to fly



One of our UAS, ready to fly



Launching the UAS for one of our field tests



The UAS in the air



The UAS in the air