

# Pix4D Take-home exercise

Thanks for your interest in Pix4D! We have prepared this small exercise for you. The **goal** is for us to evaluate your experience in building code that is meant to be run in a production environment. Please do not spend **more than 8 hours** on the test (it's not going to be worth your time). If at the end of the time allocated, you feel that you are missing things, just tell us what you feel you should have done, where your application is lacking, etc...

You should consider that it's your first day at Pix4D. You are a member of a backend team, and you get your first assignment to implement a new feature running in an internal server. The functionality needs to be implemented in **Python**. Feel free to use any tool you find interesting to build this application (Django, Flask...).

Despite you are interviewing for a full-stack position, we are mainly interested in the **backend** part of the exercise, you can do a very simple frontend or if you run out of time, we are fine with just the backend. Don't hesitate to make some choices accordingly, you can justify them if you want in a text file or in your response email but keep in mind that there is no need to implement the front-end of the application.

**Exercise:** Pix4D needs to implement a small web application for the inventory of its drones and cameras. The application will include the following features:

1. A web page to register a new drone. Whenever a new drone arrives to the company, someone from the support team will use the feature to register it by adding all the needed data. This should include at least: name, brand, serial number, different type of supported cameras (ex: phantom, DJI, x4303,hero3). The camera's main parameters are the model, megapixel number and the brand (ex: hero3, 12MP,gopro).
2. A web page to see the list of drones registered. In this page, it could also help to have some kind of filtering (e.g. by name, brand, camera megapixel, etc) as well as the ability to change the order of the results.

Keep in mind that all users can read the list of drones but only the members from the support team can add new drones to the list.