**Bachelor Project**

*Print the vehicle of the future*

**Goal of the project**

Design and then print our own version of the robot R2-D2 using CATIA and a 3D printer. Animate it by putting some components inside, in our case two motors, a servomotor, a LED and a webcam. Then control all of them using a BeagleBone.

**What it can achieve:**

- Move around
- Rotate its head
- Spy
- Blink a LED

**BeagleBone Black**

The BeagleBone Black is a low-cost, community-supported development platform for developers and hobbyists. It boots Linux and connects to a computer using a simple USB cable. We chose to program on it using Python.

**CubePro Trio**

The CubePro Trio is a 3D printer made by 3D Systems. It has the particularity of having 3 separated and independent jets. The CubePro builds parts by depositing layer over layer of plastic, which can be ABS or PLA.

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