**How to setup a co-processor on the Pixhawk Cube**

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There is documentation for connecting many different co-processors with the Pixhawk. We need to interface with the ASE design team to see exactly which Pixhawk they are using as that will influence our final decision on the co-processor. However, the most attractive options based on cost, ease of integration, and extensiveness of documentation are the Raspberry Pi and the LYCHEE.

[Communicating with Raspberry Pi via Mavlink](https://ardupilot.org/dev/docs/raspberry-pi-via-mavlink.html)

Ardupilot is an open source autopilot software which is being used by both ASE teams. It communicates with ground stations and co-processors using the [MAVLink protocol.](https://mavlink.io/en/getting_started/use_libraries.html) A MAVLink library has been created so that users can communicate through this protocol. This library has been implemented in all the common programming languages, including C, C++, Python and Java.

We can send and request data to and from the Pixhawk by uploading scripts which leverage the MAVLink library onto the Raspberry Pi. The link below has some code in C that taps into a data stream from the Pixhawk.

[Code for requesting data from Pixhawk through Mavlink2 protocol](https://discuss.ardupilot.org/t/mavlink-and-arduino-step-by-step/25566)