Orange Pi and Arducam System

This section covers how to wire the Orange Pi and Arducam System, which are vision systems that we use as an alternative to the Limelight system.

Background

Orange Pi

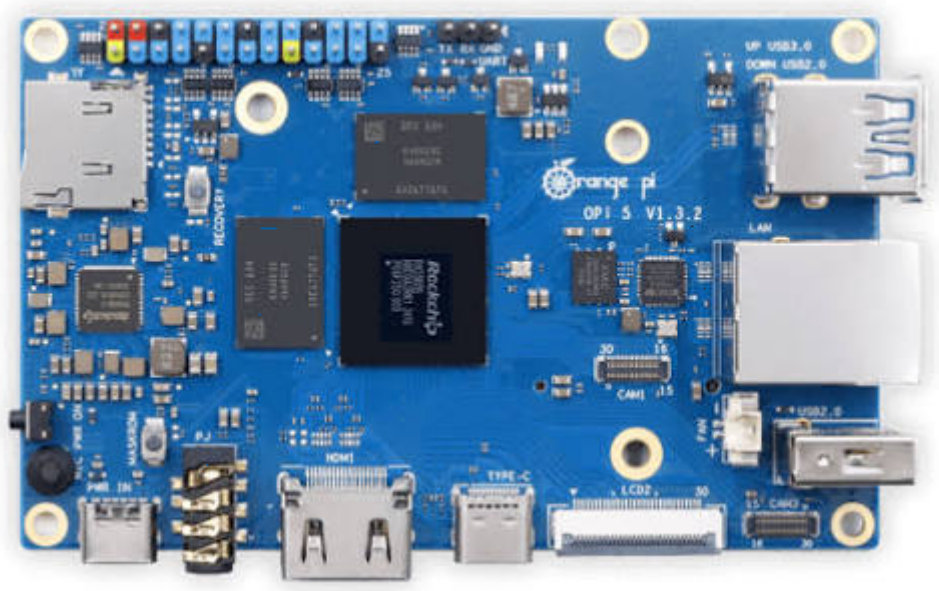


Figure 1

The Orange Pi (**Figure 1**) is a high-speed single board computer powered by a buck converter which is connected to the PDH. This requires 5 volts to power it this is where the buck converter comes in.

Buck Converter

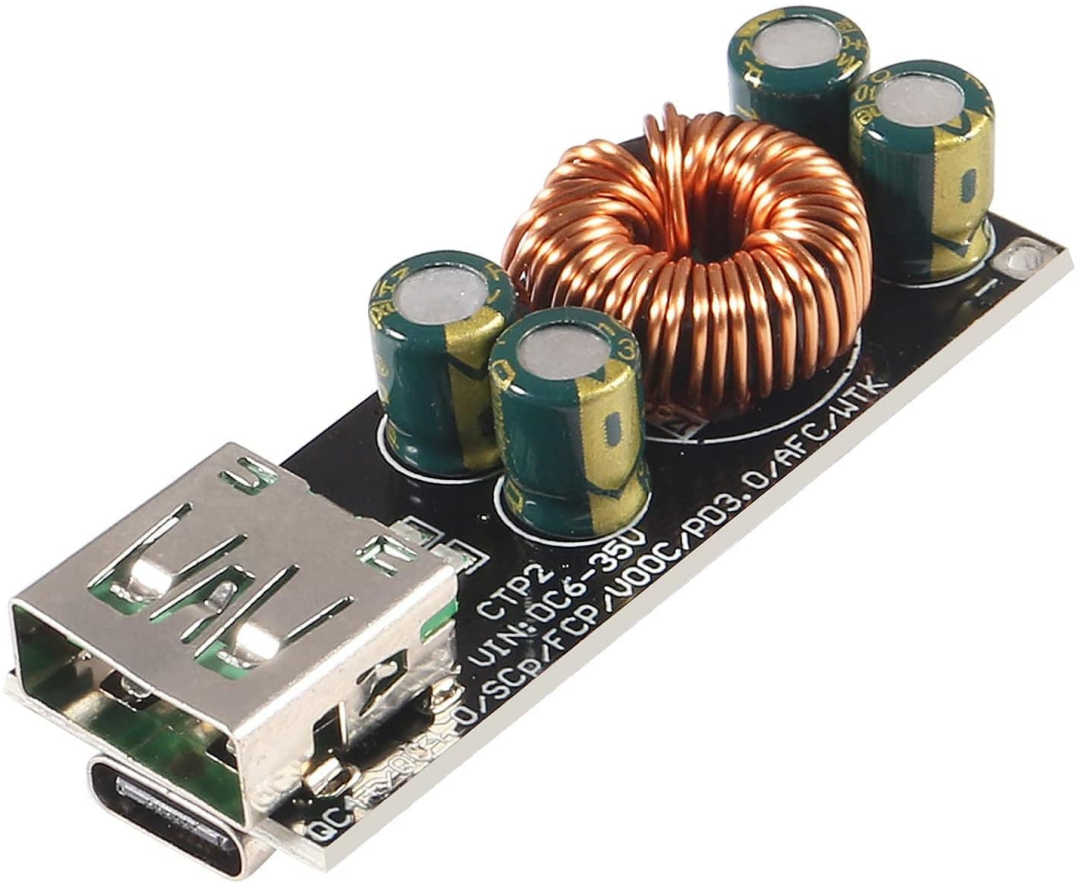


Figure 2

The buck converter is shown above in **Figure 2**. Our particular converter is a DC to DC converter which means it transfers the same type of current. The buck converter turns the 12 volts from the PDH to 5 volts.

Arducam



Figure 3

The arducam (**Figure 3**) is a robust high quality camera module specifically created for processors like the Orange Pi and Raspberry Pi. In our system, we connect the arducam to the Orange Pi via USB.

How to Wire

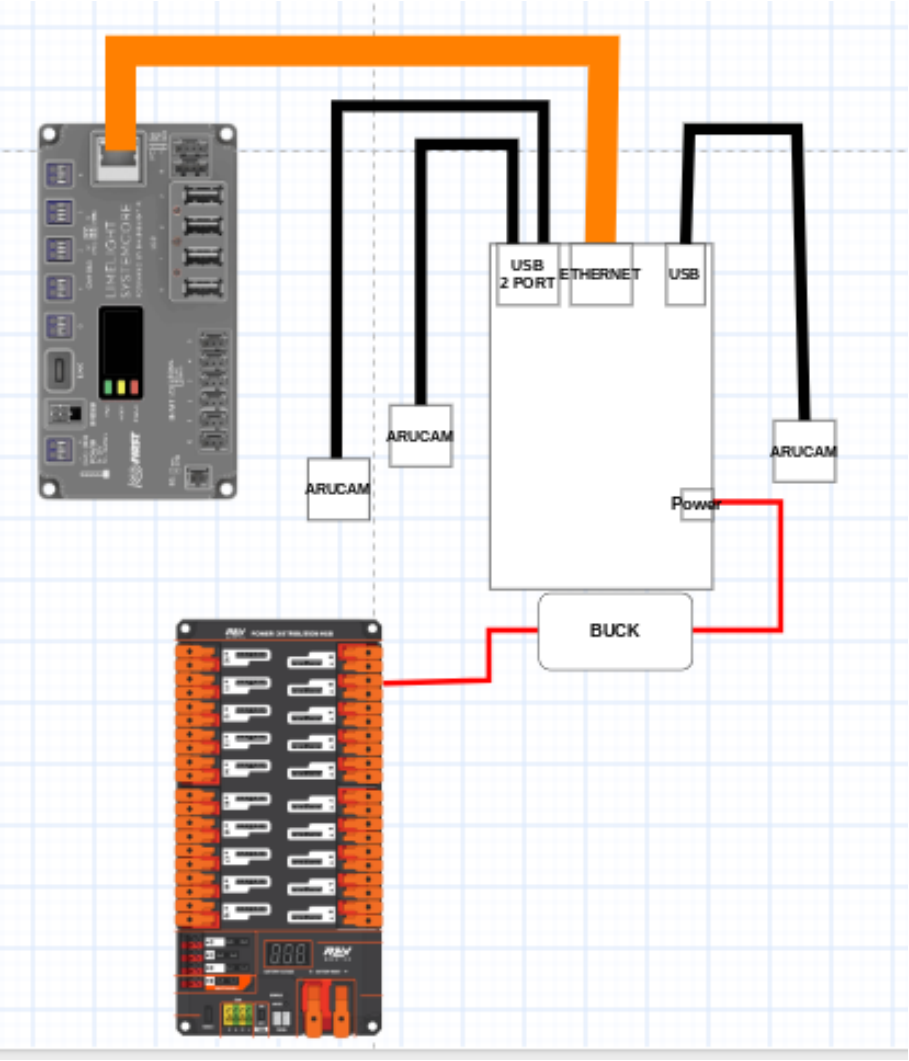


Figure 4

Revision #3
Created 2026-07-30 22:02:20 UTC by <Caleb>
Updated 2026-10-01 23:38:10 UTC by naomi_kiran