

APPLICATION NOTE

Assembling Alvium Cameras from CAD Components

V2.0.0
2022-Jul-18

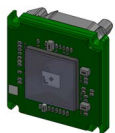


Scope

Learn to assemble Alvium cameras from CAD (STEP) components to design in the various hardware options! This document shows Alvium 1800 U cameras, but it applies to all Alvium series.

STEP file components overview

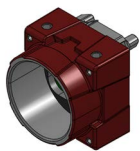
For bare board cameras, you only need the bare board STEP file. Closed housing cameras are assembled from bare board cameras and housing components:



Bare board cameras

USB bare board cameras divide into USB Standard and USB 90°.

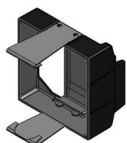
For the other interfaces, only one version exists.



Front housings

C-Mount, CS-Mount, or S-Mount are available.

Because lens mounts cause vignetting with some large sensors, by default, only C-Mount or C-Mount and CS-Mount are offered for these sensors. Other lens mounts are delivered on request.

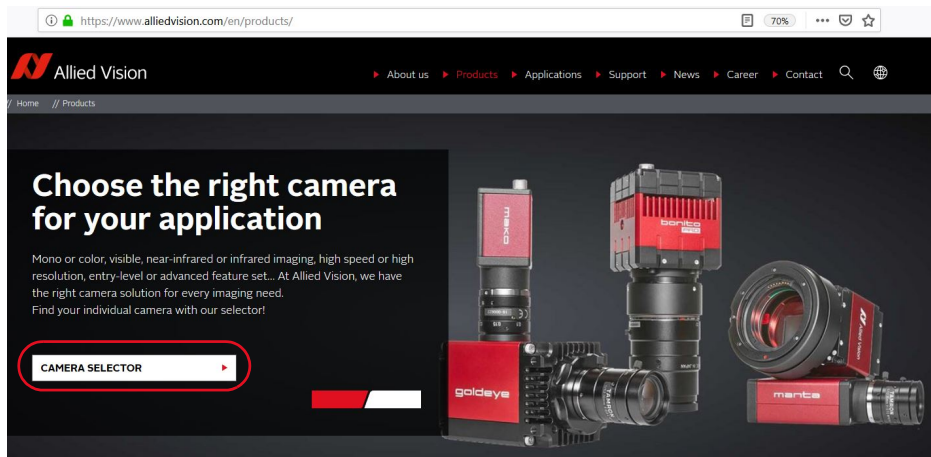


Backside covers

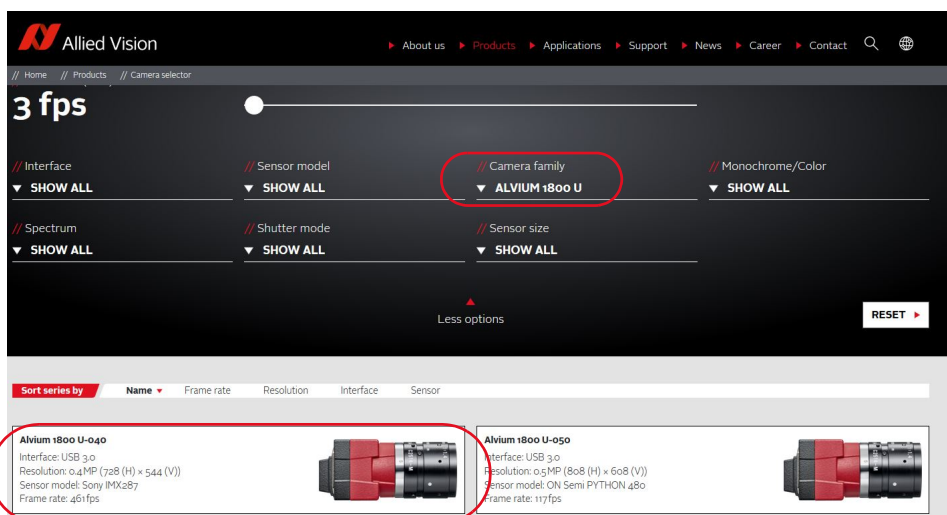
USB bare board cameras divide into USB Standard and USB 90°.

Downloading STEP files for your Alvium hardware option

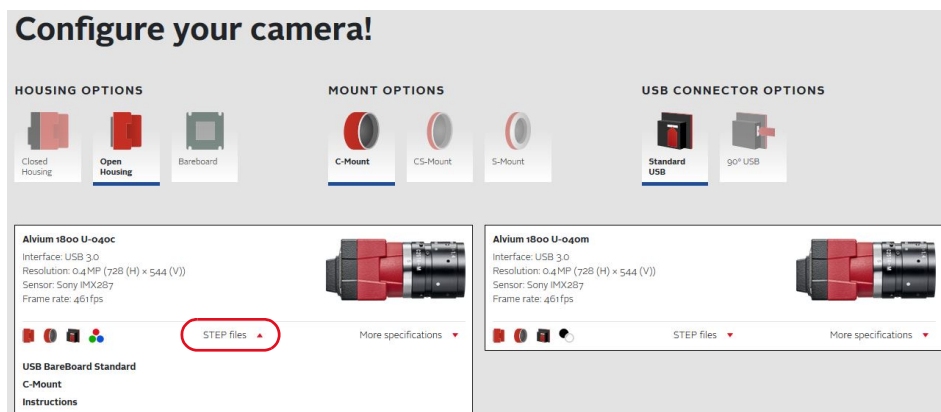
1. Go to the Camera Selector at www.alliedvision.com/en/camera-selector.



2. Select your Alvium model.

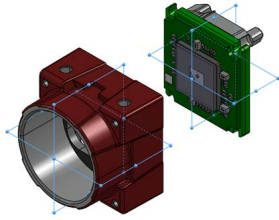


3. Configure the corresponding hardware option (such as a color Open Housing C-Mount camera). In the tile showing your Alvium submodel, open the **STEP files** link.

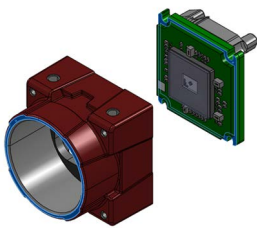


4. Download the files from the link selection shown at the bottom of the tile.

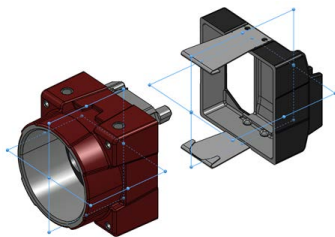
Assembling camera design models from STEP files



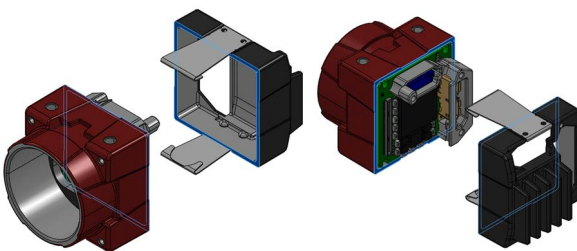
1. Set the vertical and horizontal planes congruent.



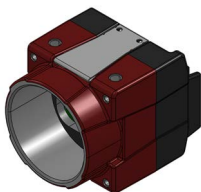
2. Set the distance between the mounting surface and the lens mount front flange. Alvium user guides state values by sensor model as Mechanical Length (ML) in the Specifications > Technical Drawings chapter, see www.alliedvision.com/en/support/technical-documentation.



3. Set the vertical and horizontal planes congruent.



4. Set the blue marked surfaces congruent.



You are done!

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