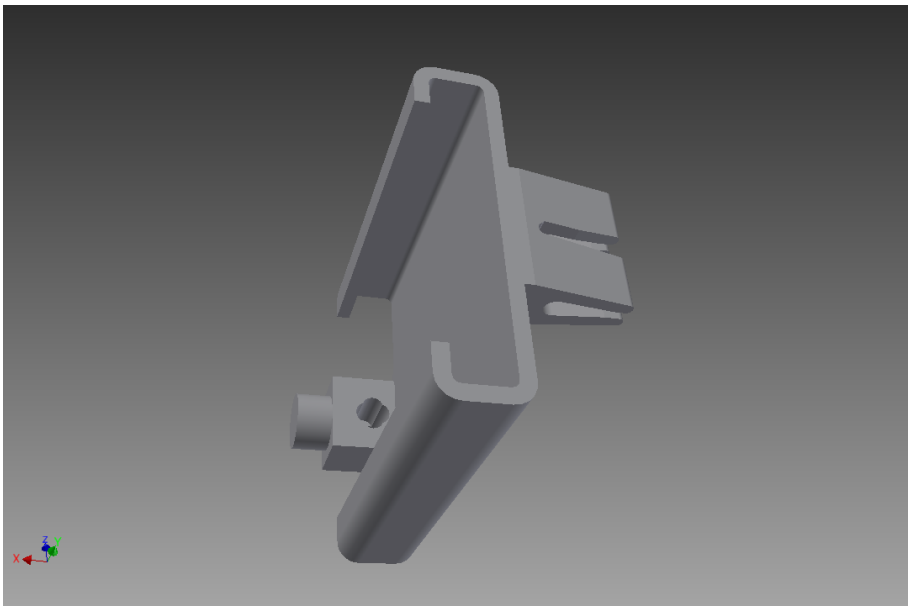
Design specs

“Vent”



1 GENERAL SPECIFICATIONS

Project	Ready-to-manufacture design of a premium iPhone 5/5s holder, mounted to a car air condition vent
Current state (as of 20th of June 2014)	3D print of a prototype with main functionalities
Desired outcome	Final design, optimized for production A complete set of technical drawings, assembly drawings, BOM etc. Retail packaging design

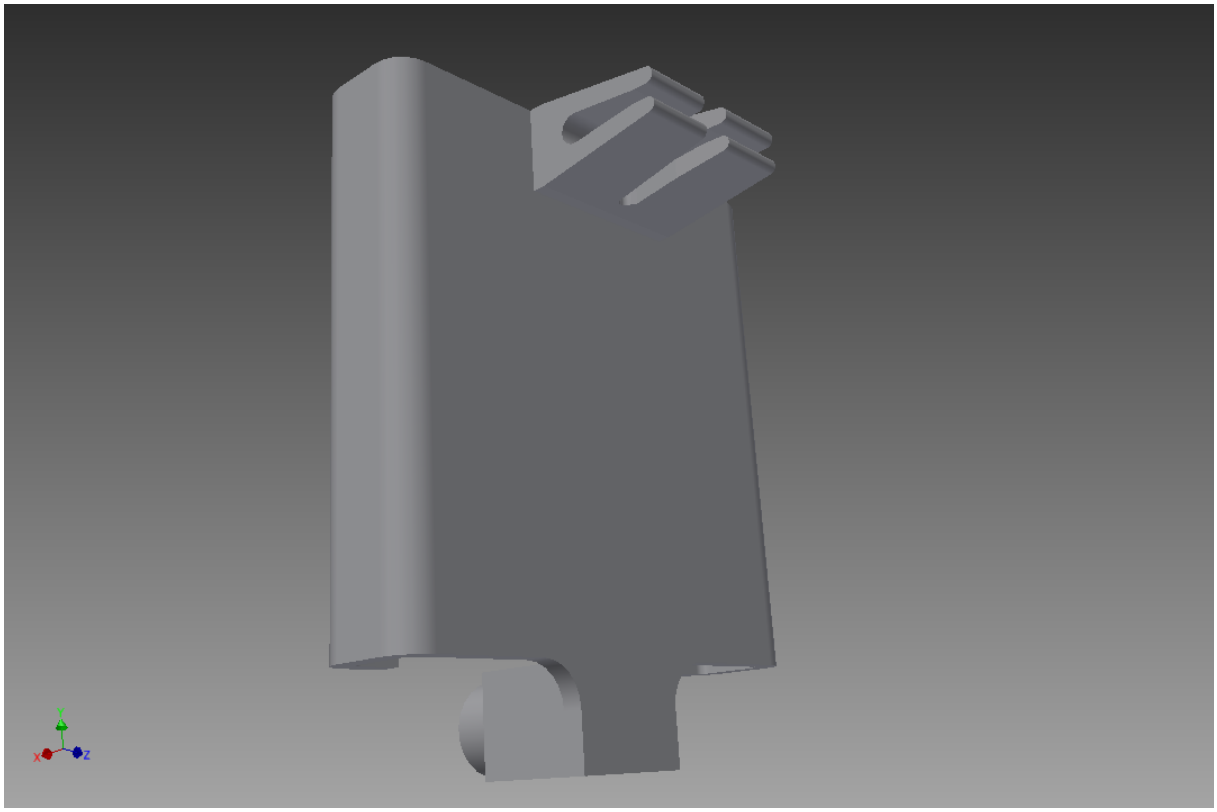
2 DETAILED SPECIFICATIONS

2.1 MATERIALS

The main body is made of aluminum or stainless steel. The second material is stitched leather. Optionally, other premium materials, such as wood, are also possible. The mounting clip can be made of molded rubber with a steel insert, similar to the solution used in the Kenu Airframe holder.

2.2 MOUNTING SYSTEM

The holder should be mounted at a car air vent using a clip.



It should clip onto the horizontal vent blades. Nevertheless, a solution allowing it to mount on the vertical blades is also welcome. The clip itself should be user-replaceable, allowing for different mounting options in future.

It should be noted that the mounting system should accept varying widths of the blades, from 2 to 4 mm. It should also prevent the whole mount from rotating. Furthermore, it should allow for the fact that some vents with horizontal blades also have a set of vertical blades at the back side.

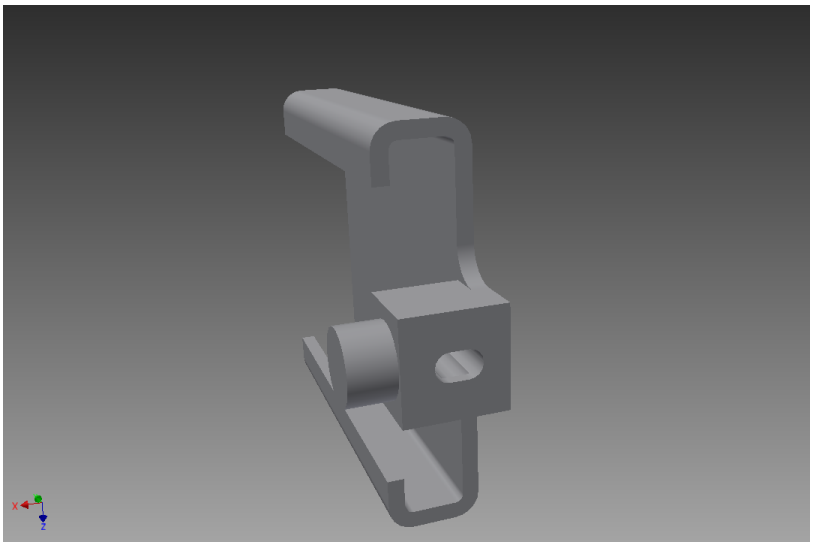
A preferred option is a rubber clip with a steel insert. A similar (in terms of material) solution is used in the Kenu Airframe mount (www.kenu.com).

Necessary improvements

The whole mounting solution needs to be invented from scratch.

2.3 CHARGING SYSTEM

Holder accommodates a standard Lightning charging cable that comes included with every iPhone 5/5s. The plug goes through a hole in the base and is locked by tightening the thumbscrew.



Necessary improvements

Although the Lightning plug looks sturdy, it starts to bend with time. In the setup that was used for testing this is probably a result of small surface of the bolt used to lock the plug (standard M4 screw). There's hence a need of a different solution – possibly a larger screw (M6) with a completely flat working surface.

2.4 PHONE HOLDING MECHANISM

The mechanism should be able to hold iPhone 5/5s securely. User should be able to slide the iPhone into the holder without a need for any additional movement or adjustments. Holder should accommodate iPhone 5/5s either bare, or with a typical slim phone case, i.e. anything between:

- 58,7 mm width and 7,8 mm depth, which is a size of an iPhone
- 62,5 mm width and 10,5 mm depth, which is a size of an iPhone with Apple original soft case

The charging-plug hole should be located in a position that allows user to charge the phone both with and without a case.

Required improvements

Most probably, a metal spring-based mechanism is required to hold the phone. It should retain its properties throughout many hours of use. It should work both with and without a case applied on the phone (see dimensions above). User should be able to slide the phone from above without any considerable effort, using one hand. She should also be able to remove it using one hand.

Substantial improvements are expected in this area, compared to the current state.

2.5 PRODUCTION REQUIREMENTS

The initial planned production run is 500-1000 units, depending on the pre-orders. The holder's design should be optimized for this quantity at reasonable costs.

2.6 STYLE AND GENERAL REQUIREMENTS

The holder is a premium product, which should be expressed both by used materials (finished aluminum, stitched leather) and the design. The metal surface can be either anodized, lacquered or other.

Required improvements

The product should have a premium, stylish look.

It is difficult to describe the style requirements. However, the mount can mix two design strands:

- the minimalistic Apple style,
- the design of the automotive industry of the '60s and '70s.

(For references, please see links in the Appendix.)

It remains to be agreed, to what extent the final product follows each of these styles.

3 APPENDIX – STYLES

3.1 EXAMPLES OF THE APPLE STYLE

http://www.satechi.net/index.php/satechi-4-port-usb-3-0-premium-aluminum-hub-for-imac-macbook-air-macbook-pro-macbook-macmini-pcs-and-laptops

https://www.kickstarter.com/projects/1078575357/godock-a-docking-station-for-the-mobile-age

https://www.kickstarter.com/projects/490621206/midock-iphone-5-dock-lightweight-unibody?ref=nav_search

http://ev-va.com/

http://www.ocdesk.com/

3.2 EXAMPLES OF THE AUTOMOTIVE STYLE

http://cadillac.carphoto.biz/convertible-1960/553/interior-seats.html

http://www.oldcarsweekly.com/car-of-the-week/car-of-the-week-1960-chevrolet-corvette

http://dynamical.biz/blog/web-analytics/6-beautiful-dashboards-60.html

http://www.autorestorationice.com/2014/03/1964-mercury-comet-404.html

http://www.carstyling.ru/en/car/1980_lamborghini_athon/images/22455/