

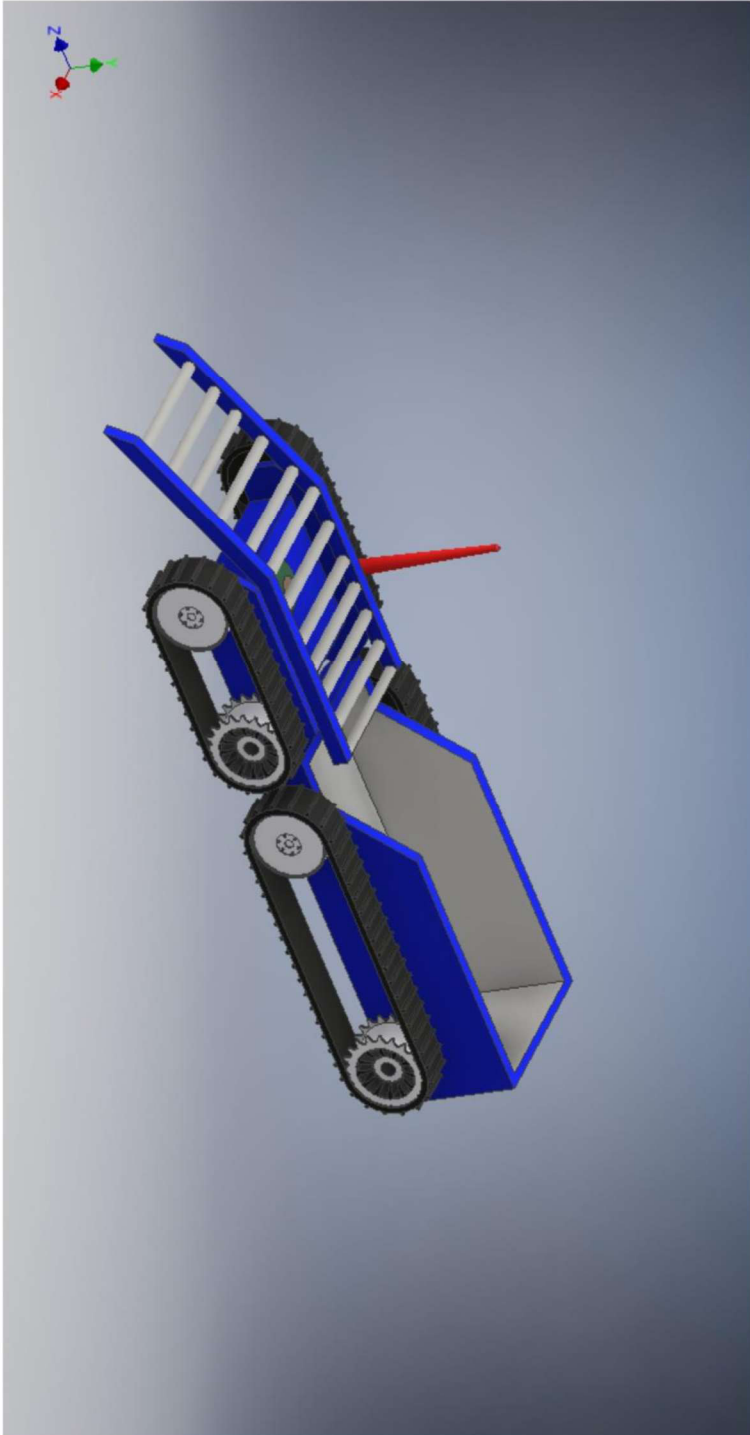



## LAMPIRAN 1 FOTO ALAT

 <p>TEKNIK ELEKTRONIKA D3 FAKULTAS TEKNIK UNIV. NEGERI YOGYAKARTA</p>		<p>FOTO ALAT AUTONOMOUS ROVER</p>		<p>KETERANGAN</p>	
		<p>SKA. 1 : 1</p>	<p>DIP. Drs. Toek Sahardiyono, M.T.</p>		
		<p>DIG. ADHY FEBRY A</p>	<p>TGL. 11/7/2019</p>	<p>NIM. 16507134001</p>	

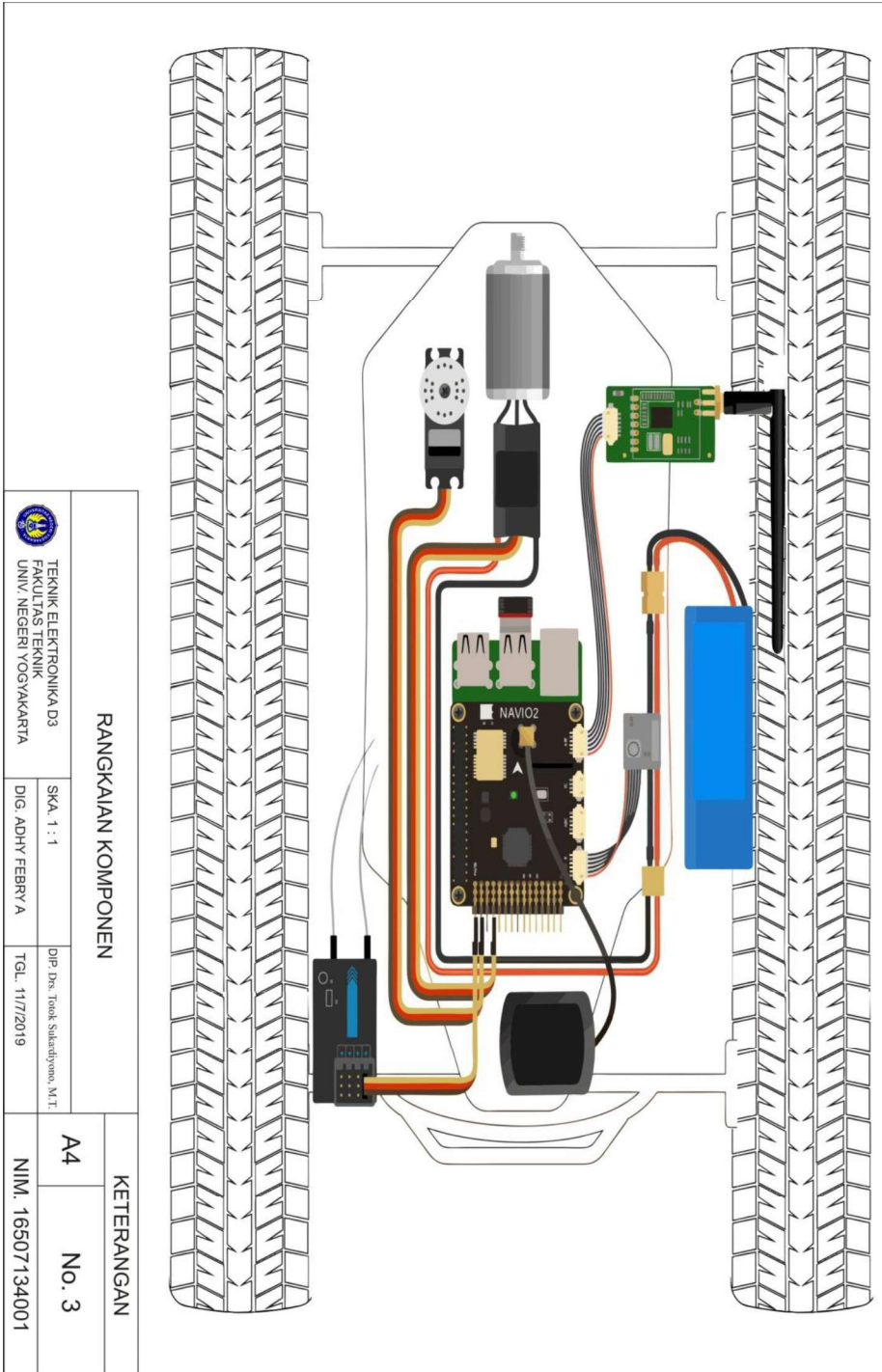
  


## LAMPIRAN 2 DESAIN 3D



<b>DESAIN 3D ALAT</b>		<b>KETERANGAN</b>	
 TEKNIK ELEKTRONIKA D3 FAKULTAS TEKNIK UNIV. NEGERI YOGYAKARTA	SKA. 1 : 1	Dip. Drs. Toek Sikanthyono, M.T.	A4
DIG. ADHY FEBRY A	TGL. 11/7/2019	No. 2	NIM. 16507134001

### LAMPIRAN 3 RANGKAIAN ELEKTRONIK



# LAMPIRAN 4 DATASHEET APM

[Docs](#) » [Appendix](#) » [Archived Topics](#) » Archived:APM 2.5 and 2.6 Overview

## Archived:APM 2.5 and 2.6 Overview

### Warning

The APM2.x is end of life for use with ArduPilot. This article is made available for existing users.

## APM 2.5


### Warning

The APM2.6 board is no longer supported for Copter. From Copter 3.3 firmware (and later) no longer ts on APM boards. The last firmware builds that can be installed (AC v3.2.1) can be downloaded from here: [APM2.x](#) and [AMP1.x](#)

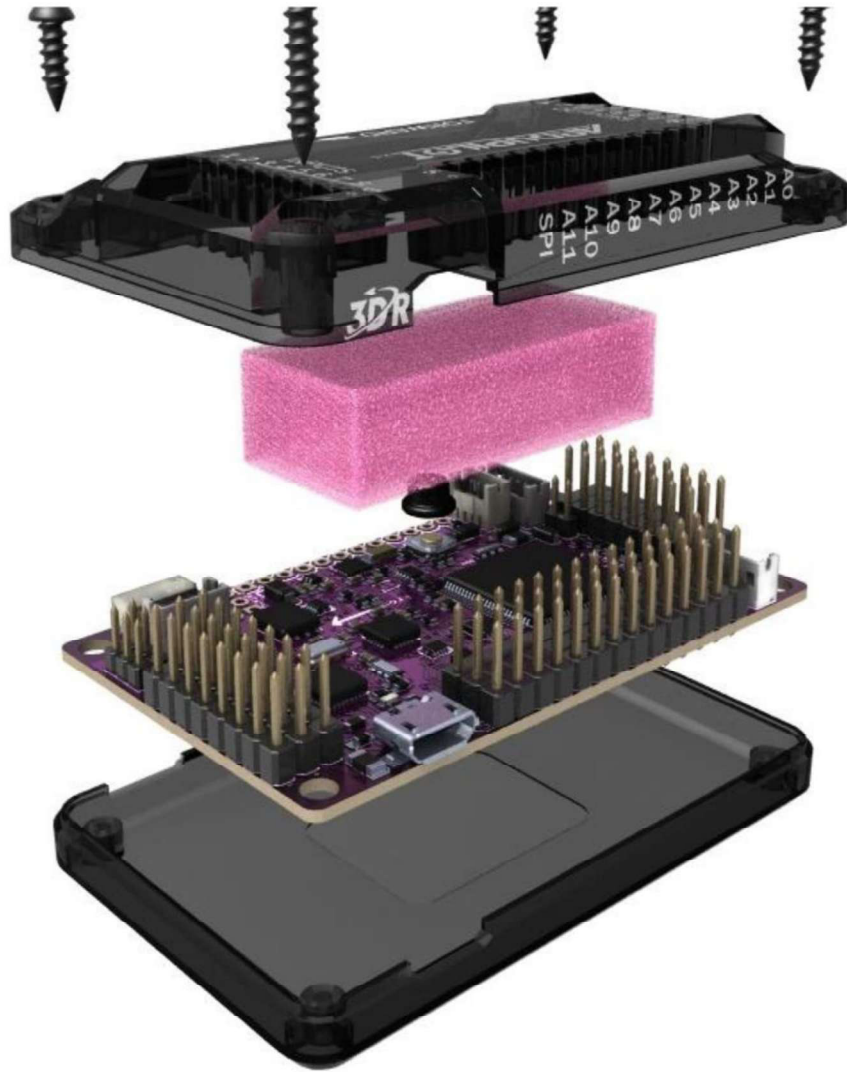
### Warning

The APM2.6 board is no longer supported for Plane. The last firmware build that ts on the APM is Plane 3.3.0.

The APM 2.5 board requires no assembly, and is ready for firmware. You have a choice of side or top entry pin con guration, in order to accommodate a variety of installations. You'll see this option when you order.

DATASHEET APM			KETERANGAN	
 TEKNIK ELEKTRONIKA D3 FAKULTAS TEKNIK UNIV. NEGERI YOGYAKARTA	SKA. 1 : 1	DIP. Dis. Teknik Sukandiyono, M.T.	A4	No. 4
	DIG. ADHY FEBRY A	TGL. 11/7/2019		





This page gives you a look under the hood, and goes into more detail about the design of this board.

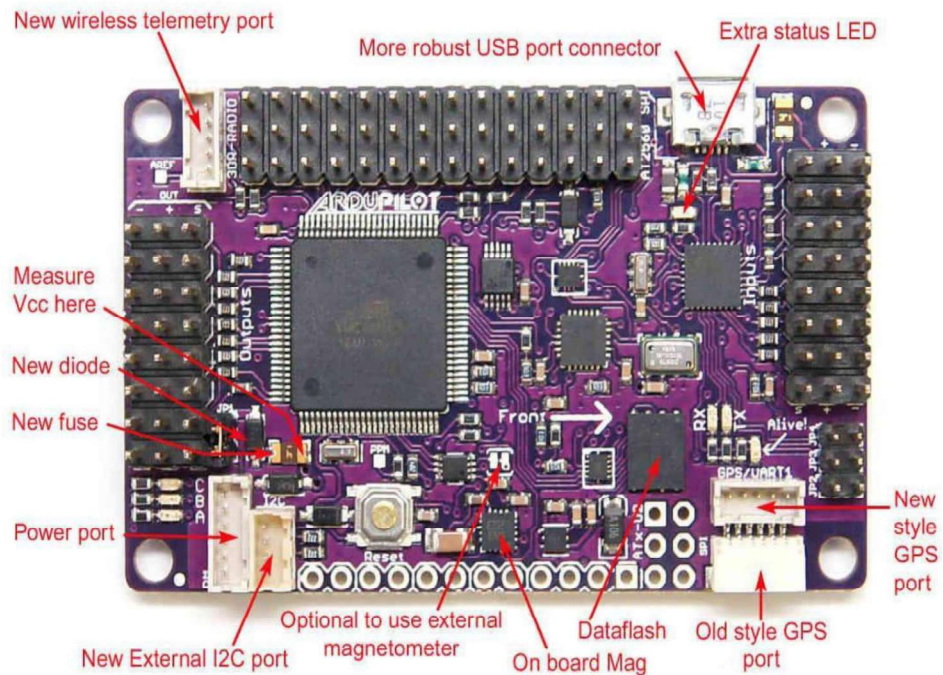
The APM 2.5 has some improvements over the APM 2.0, but they both have a very similar layout and function.

## APM 2.6

- APM 2.6 is a revision of the APM that makes use of an external compass.

should be placed as far from power and motor sources as possible to avoid magnetic interference.

- APM 2.6 is designed to be used with the 3DR GPS uBlox LEA-6 with Compass module.
- The GPS/Compass module may be mounted further from noise sources than the APM itself.
- APM 2.6 requires a GPS unit with an on board compass for full autonomy.
- For information on installing a 3DR GPS uBlox LEA-6 with Compass, visit [3DR Power Module](#).



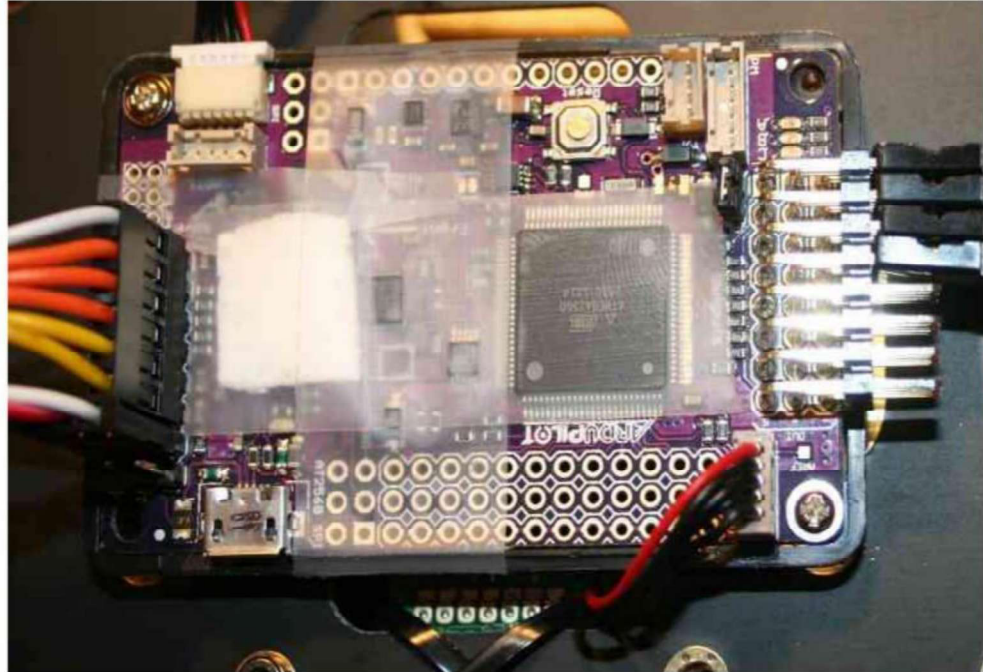
## Using the APM 2.5/2.6 Enclosure

The APM 2.5/2.6 board is shipped in an enclosure with foam protecting the barometric pressure sensor, as shown here.



## Not using the APM Enclosure

If you aren't using the enclosure, make sure to cover the barometric sensor with some open cell foam, cotton padding or tissue to protect it from prop wash, wind and turbulence. Also, the barometric sensor is sensitive to light and readings can change by several meters from direct sunlight to shade. Some type of light shield (on top of the foam) will minimize the effects of light changes.



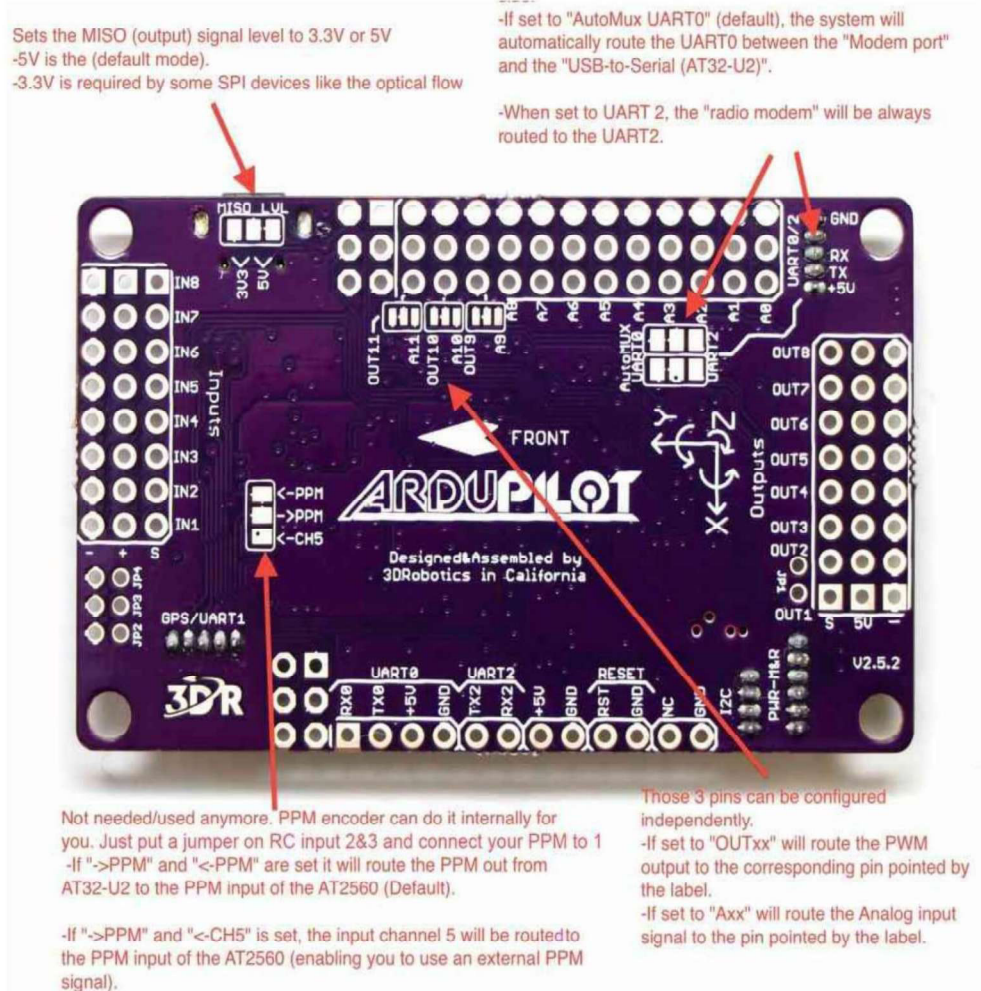
## Powering the APM2

The most common way to power the APM2 is to use the [3DR Power Module](#).

Detailed information on powering the APM and providing power to Servos is provided in [Powering the APM2](#).

Explanation of solder jumper options on the bottom of the board



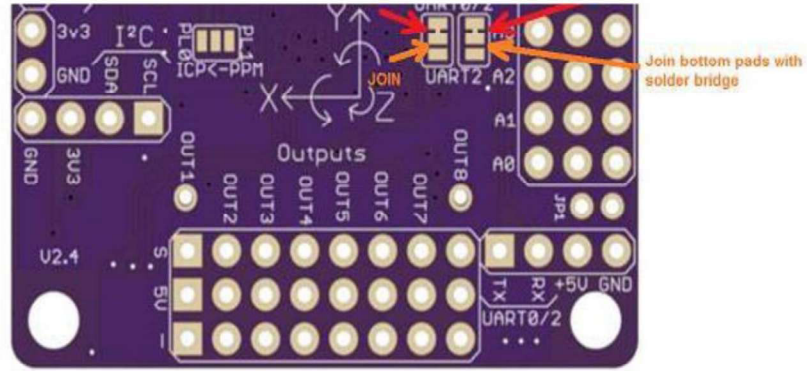


### Changing your telemetry to use UART2 (aka Serial3)

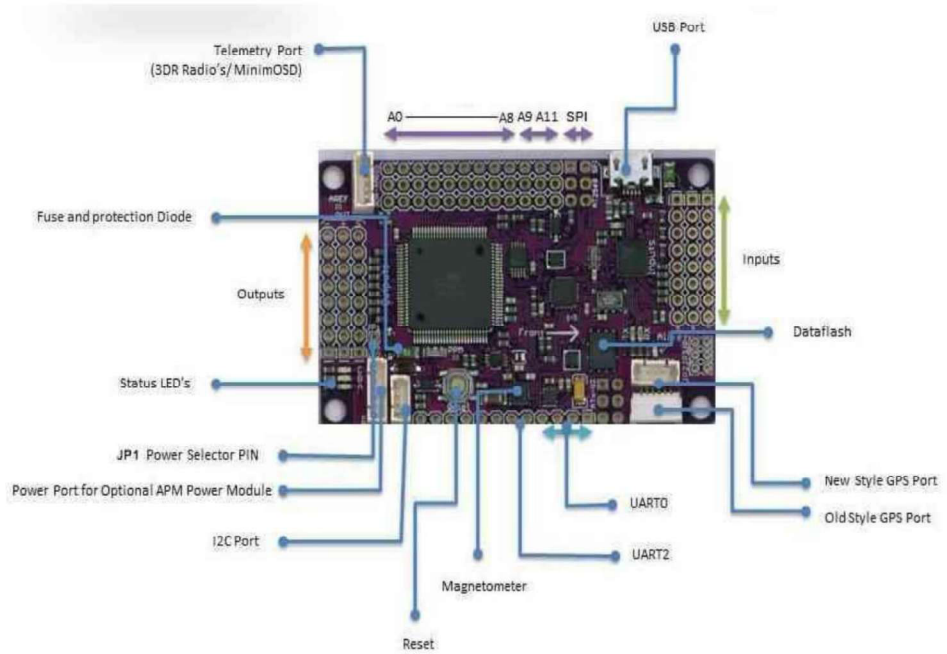
By default an Xbee connected to the APM2 will use UART0 (aka "Serial" in Arduino) which is shared with the USB as mentioned above. If you wish to instead use UART2 (aka "Serial3") for telemetry you can change the "AutoMUX UART0" jumper on the bottom of the APM2.

Although difficult to see, by default there are two small jumpers between the upper pads that must be cut with an X-Acto blade. Then a new solder bridge must be made to join the bottom pads.

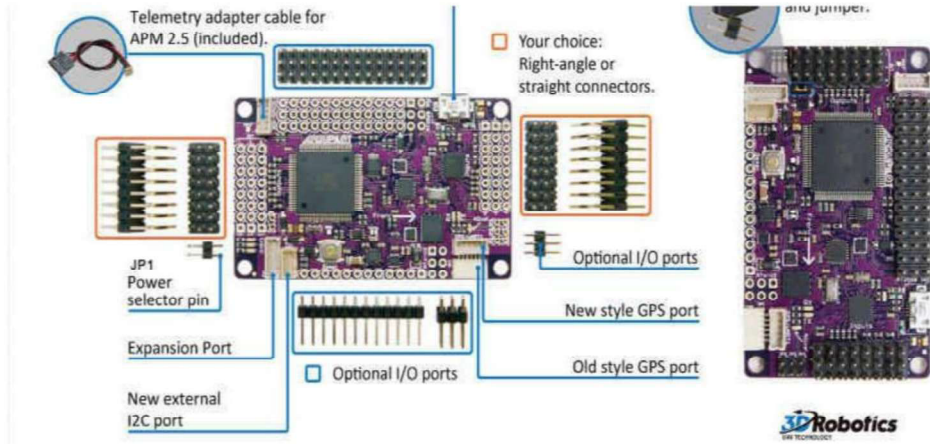




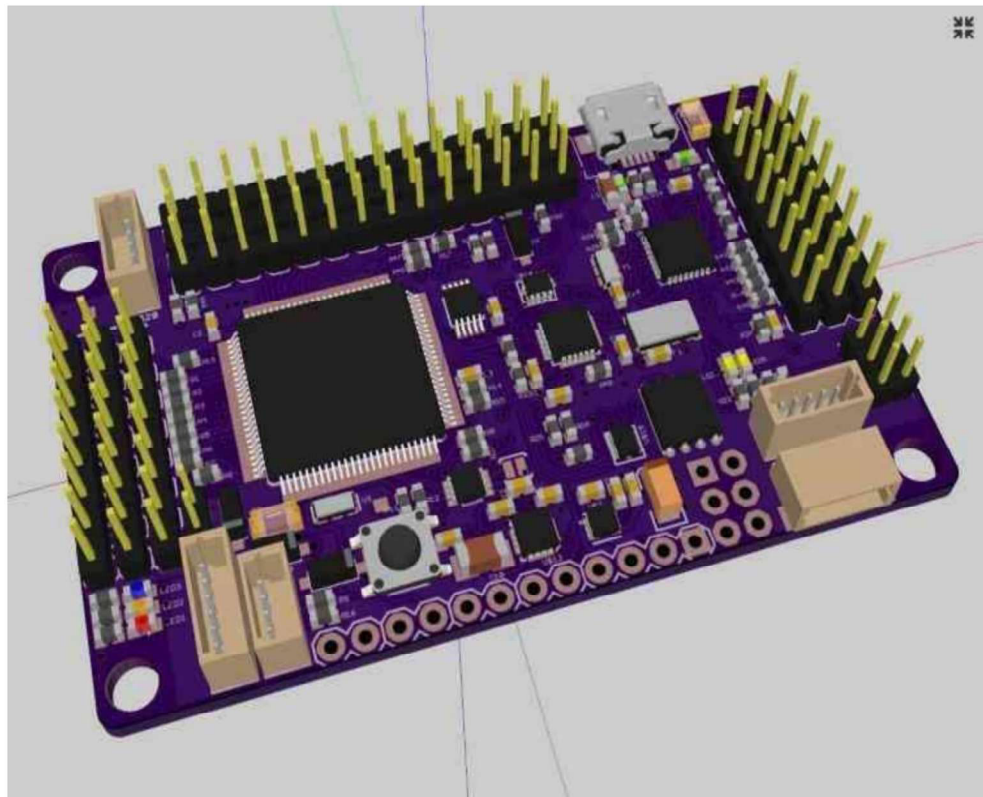
### APM 2.5 Board Features



### APM 2.5 Board Assembly Options



- Quadzimoto has produced a really nice editable 3D model of the APM 2.5 board in SketchUp 8: `APM 2.5 Google Sketchup File`  
<[http://api.ning.com/les/z\\*snRdi7rtEVMDL6zeTTD678X-\\*SIqNkeiepEP-wb-0A5OFmvQtg033sq9pqhoTVdRIYs9ti10ygSpGNk-hhNnRNbQd8kV78/APM2.5SketchupFile.zip](http://api.ning.com/les/z*snRdi7rtEVMDL6zeTTD678X-*SIqNkeiepEP-wb-0A5OFmvQtg033sq9pqhoTVdRIYs9ti10ygSpGNk-hhNnRNbQd8kV78/APM2.5SketchupFile.zip)>`\_\_



## Analog input pins

10/7/2019  
MENU

Archived:APM 2.5 and 2.6 Overview — Copter documentation

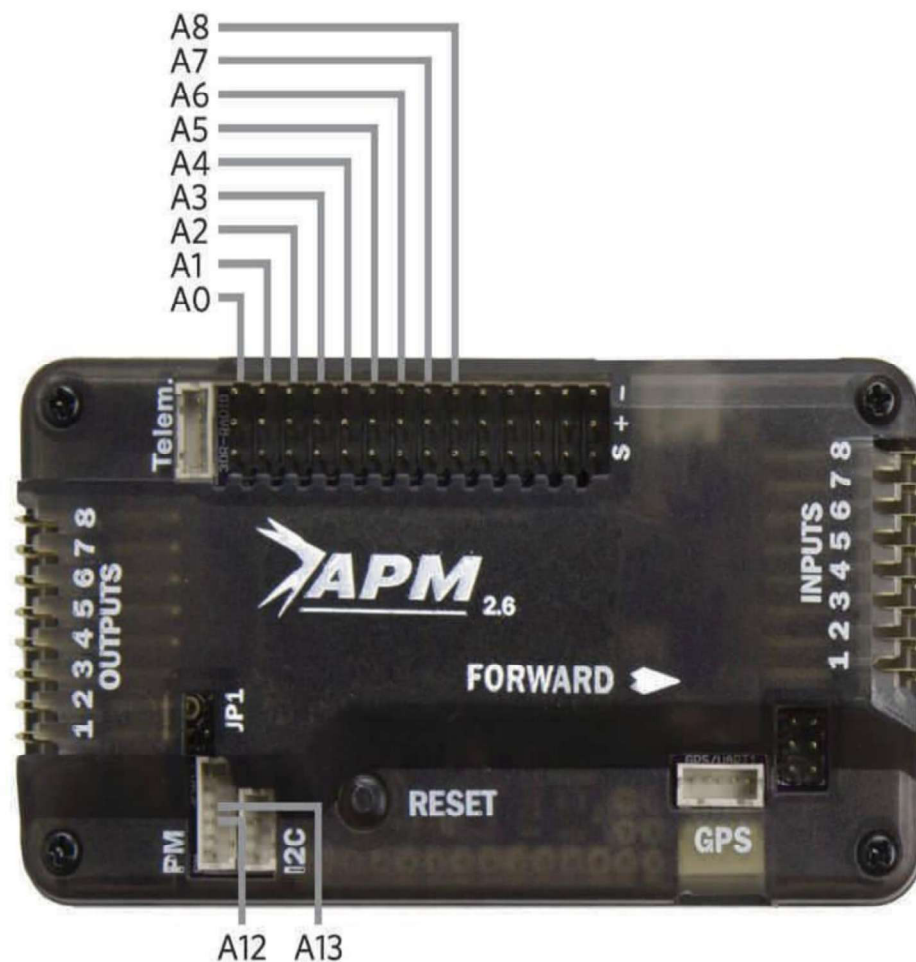
Servers by jDrones

Pin 0 to 8: The APM2 has a row of analog input pins down one side, labelled A0 to A8 on the underside of the board. These are available as pin numbers 0 to 8 inclusive in PIN variables.

All these pins can take up to 5V and may be used for any general analog input. They are commonly used for airspeed and sonar inputs.

Pin 12: power management connector current pin, accepts up to 5V, usually attached to 3DR power brick with 17:1 scaling

Pin 13: power management connector voltage pin, accepts up to 5V, usually attached to 3DR power brick with 10.1:1 scaling



## Digital output pins

[ardupilot.org/copter/docs/common-apm25-and-26-overview.html](http://ardupilot.org/copter/docs/common-apm25-and-26-overview.html)

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## LAMPIRAN 5 BROSUR

 TEKNIK ELEKTRONIKA D3 FAKULTAS TEKNIK UNIV. NEGERI YOGYAKARTA	<b>BROSUR ALAT</b>		<b>KETERANGAN</b>	
	SKA. 1 : 1			A4
	DIG. ADHY FEBRY A			No. 10
		TGL. 11/7/2019	NIM. 16507134001	

### LATAR BELAKANG

SEMAKIN BERKURANGNYA PENGUNJUNG DI OBYEK WISATA PANTAI AKIBAT PANTAI YANG KOTOR

PANTAI SEMAKIN BANYAK SAMPAH

SEMAKIN BANYAK PENCEMARAN LAUT AKIBAT SEMAKIN BANYAKNYA SAMPAH DI PANTAI

PENGELOLA PANTAI YANG KESULITAN MENGATASI PEMBERSIHAN SAMPAH PANTAI

### MANFAAT

1. INOVASI BARU PEMANFAATAN TEKNOLOGI DALAM BIDANG TEKNOLOGI TEPAT GUNA
2. SEBAGAI ALTERNATIF UNTUK MEMPERMUDAH MELAKUKAN PENGUMPULAN SAMPAH PESISIR SECARA OTOMATIS
3. MEMBANTU PEMERINTAH DALAM MEWUJUDKAN INDONESIA YANG UNGGUL DALAM KEMARITIMAN



### SPESIFIKASI

  
 APM

  
 GPS

  
 TRASMITTER  
RECEIVER

  
 MOTOR  
BRUSHLESS

  
 TELEMETRI

  
 BATERAI LI PO

### TUJUAN

MENGETAHUI CARA PEMBUATAN ROVER PEMBERSIH SAMPAH PANTAI GUNA MENINGKATKAN PARIWISATA DAN MENDUKUNG INDONESIA SEBAGAI POROS MARITIM DUNIA



MENGETAHUI DESAIN ALAT AUTONOMOUS ROVER PEMBERSIH SAMPAH PANTAI GUNA MENINGKATKAN PARIWISATA DAN MENDUKUNG INDONESIA SEBAGAI POROS MARITIM DUNIA.

MENGETAHUI PRINSIP KERJA ALAT AUTONOMOUS ROVER PEMBERSIH SAMPAH PANTAI GUNA MENINGKATKAN PARIWISATA DAN MENDUKUNG INDONESIA SEBAGAI POROS MARITIM DUNIA





## LAMPIRAN 6 POSTER

 <p>TEKNIK ELEKTRONIKA D3 FAKULTAS TEKNIK UNIV. NEGERI YOGYAKARTA</p>	<p>POSTER ALAT</p>	<p>SKA. 1 : 1 DIG. ADHY FEBRY A DIP. Drs. Toek Suardiyono, M.T TGL. 11/7/2019</p>	<p>KETERANGAN</p> <p>A4 No. 11 NIM. 16507134001</p>	
				<p><b>AUTONOMOUS ROVER PEMERSIH SAMPAH PANTAI</b></p> <p>GUNA MENINGKATKAN PARIWISATA DAN MENDUKUNG INDONESIA SEBAGAI POROS MARITIM DUNIA</p> <p><b>PRINSIP KERJA</b></p> <p>ROVER INI DAPAT BERJALAN SECARA OTOMATIS ATAUPUN SECARA MANUAL DENGAN DIKENDALIKAN MELALUI REMOTE CONTROL DARI JARAK JAUH. ROVER BEROPERASI SESUAI DENGAN WAYPOINT JELAJAH YANG TELAH DIATUR. SAMPAH AKAN DIBAWA KEMBALI KE TITIK AWAL ROVER BEROPERASI.</p> <p><b>SPESIFIKASI</b></p> <ol style="list-style-type: none"> <li>1. APM</li> <li>2. GPS</li> <li>3. TRANSMITTER RECEIVER</li> <li>4. TELEMETRY</li> <li>5. BATERI LI PO</li> </ol> <p><b>MANFAAT</b></p> <ol style="list-style-type: none"> <li>1. INOVASI PEMANFAATAN TEKNOLOGI TEPAT GUNA</li> <li>2. MEMPERMUDAH PENGUMPULAN SAMPAH</li> <li>3. MEMBANTU MEWUJUDKAN INDONESIA UNGGUL DALAM BIDANG KEMARITIMAN</li> </ol>