



# Grove - Mega Shield v1.2

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Wiki: [http://seedstudio.com/wiki/index.php?title=Stem - Mega Shield](http://seedstudio.com/wiki/index.php?title=Stem_-_Mega_Shield)

Bazaar: <http://www.seedstudio.com/depot/Grove-Mega-Shield-v12-p-2539.html>

## Document Revision History

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Revision	Date	Author	Description
1.0	Sep 21, 2015	Victor.He	Create file

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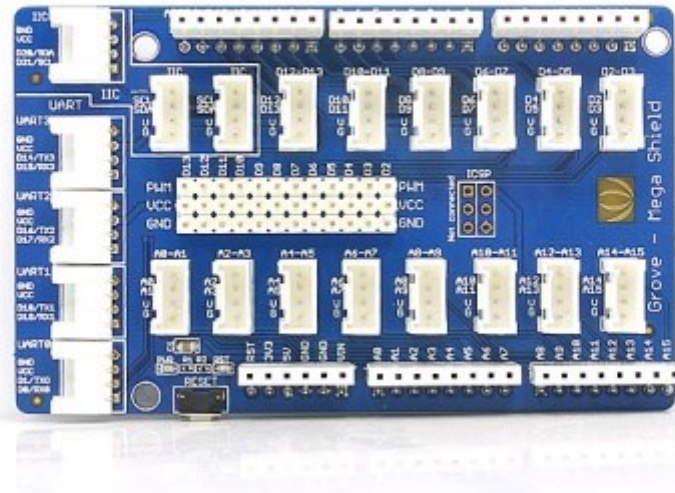
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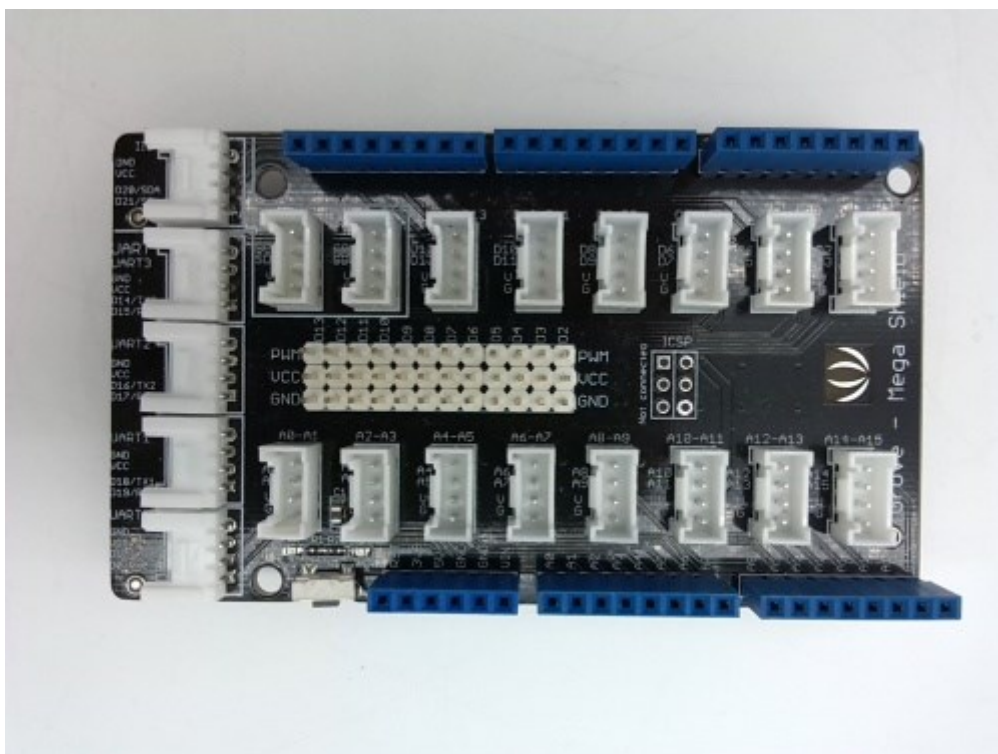
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## 1. Introduction

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Mega Shield 1.0



Mega Shield v1.1

**Grove - Mega Shield** is an extension board for **Arduino Mega** and **Google ADK**. We have standardized all the connectors into 4 pins (Signal 1, Signal 2, VCC and GND) 2mm connectors and keep some of the 3pins (Signal, VCC and GND) 2.54mm headers for [Servo](#) and Electronic Bricks, which simplify the wiring of electronics projects. The 4pins buckled connectors also make the wiring situation more stable. The **Mega Shield** includes Digital 0 - 21 and Analog 0 – 15; we abandon Digital 22 - 53 for easily installing **Mega Shield** with **Xduino Mega/Google ADK**.

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## 2. Features

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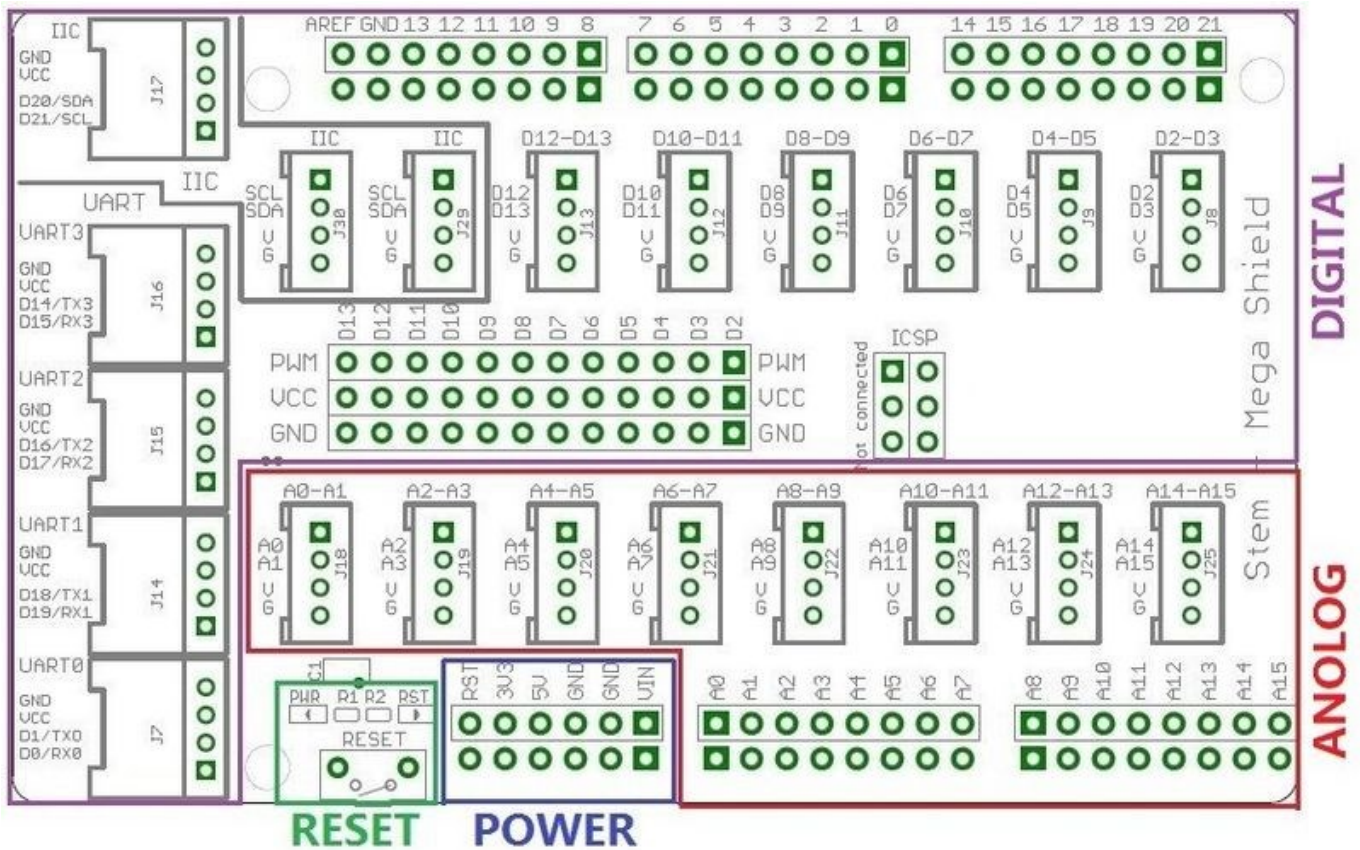
- Arduino Mega1280/2560 compatible
- Grove compatible
- Google ADK compatible
- Dimensions: 92.8 mm X 57.2 mm.

### 3. Function Block

The purpose of the **Grove - Mega Shield** is to allow easy connection of **Xduino Mega/Google ADK** input and output pins to the Grove units.

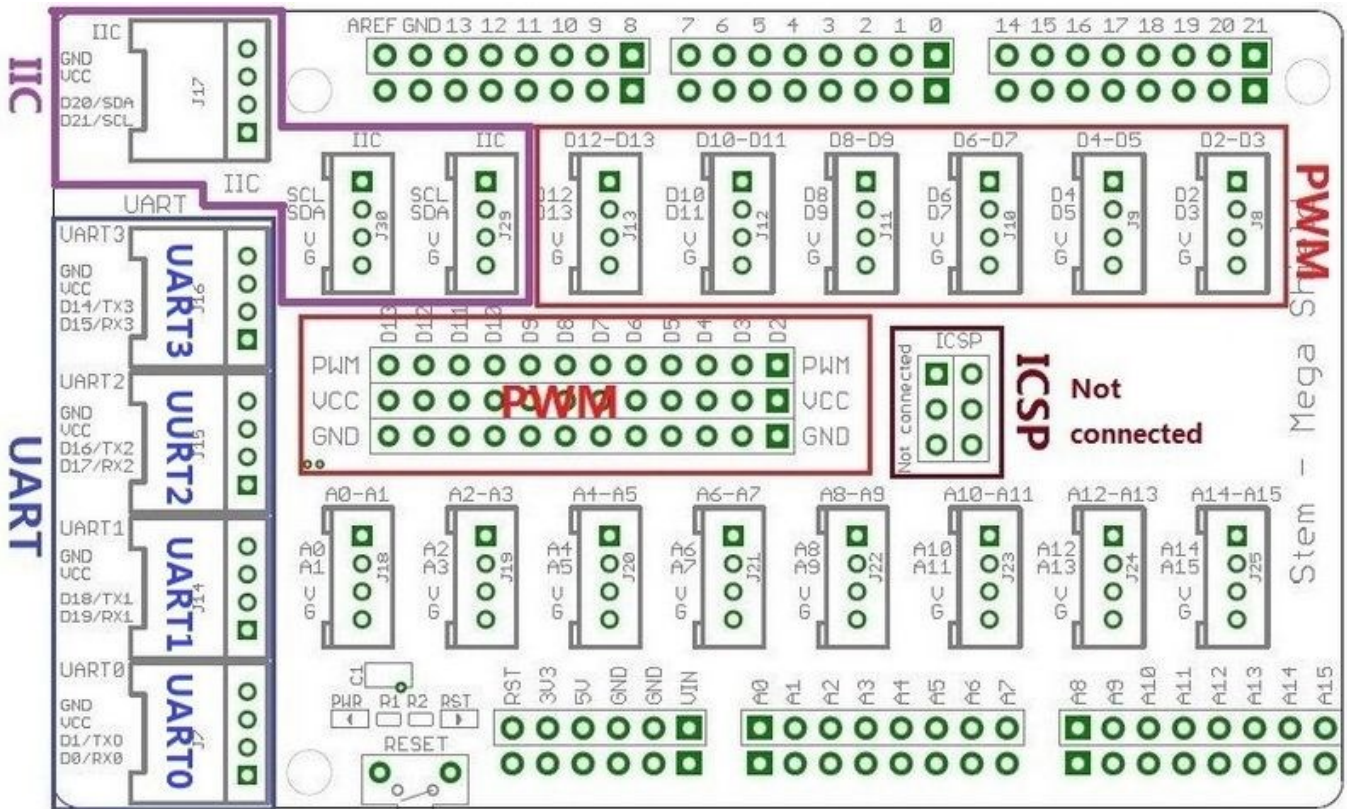
Each socket is clearly labelled with its matching I/O pin. The **Grove - Mega Shield** can be divided into four sections: Reset Button, Analog Area, Digital Area and Power Area.

Please consider the following diagram:





The Digital Area of **Grove - Mega Shield** can also be partitioned into four sections according to different function of GPIO: IIC ( 3 connectors ), UART( UART0-3 ), PWM ( PWM2-13 ) and ICSP( not connector ). Please be aware that PWM have two ways of appearance: 3Pin 2.54mm Header and our standard 4Pin 2mm connector. Those two forms of appearance serve different purpose, 4Pin 2mm connectors can connect to our standard Groves while 3Pin 2.54mm Header can connect to [Servo](#), [Ultra Sonic range measurement module](#) and **Electronic Bricks**. Please be aware that When using 3Pin and 4Pin modules on PWM at the same time, Do take extra attention in case of multi-using the same GPIO. Please refer to the following diagram:



## 4. Resources

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- [Eagle File of Grove - Mega Shield](#)
- [Eagle File of Grove - Mega Shield v1.1](#)