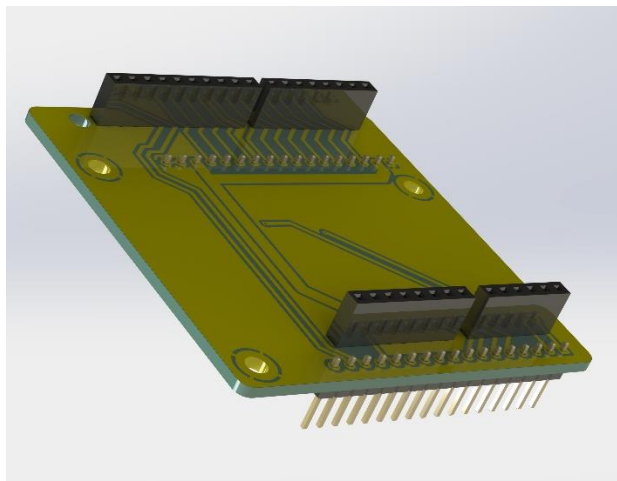


## Ada Shield



## Description

The Hypatia Shield enables seamless integration of Arduino boards with the Hypatia Board, expanding its functionality for diverse IoT applications. It allows for direct communication between the ESP32-S3 on the Hypatia Board and the Arduino, enabling the use of existing Arduino shields and peripherals. The shield ensures compatibility with the 2.54mm breakout grid and simplifies project development by combining Arduino's extensive ecosystem with the Hypatia Board's advanced features, such as LoRa-Sigfox connectivity and LiPo battery management.

## The board

| Ref. | Description   |
|------|---------------|
| H1   | Mounting Hole |
| H2   | Mounting Hole |
| H3   | Mounting Hole |
| J1   | Power         |
| J2   | Digital/ PWM  |
| J3   | Analog        |
| J4   | Digital/ PWM  |
| J5   | Conn_01x17    |
| J6   | Conn_01x17    |

| J1 | Function |
|----|----------|
| 1  | NC       |
| 2  | +3.3V    |

|   |       |
|---|-------|
| 3 | Reset |
| 4 | +3.3V |
| 5 | +5V   |
| 6 | GND   |
| 7 | GND   |
| 8 | VCC   |

| Pin J2 | Function |
|--------|----------|
| 1      | SCL/A5   |
| 2      | SDA/A4   |
| 3      | AREF     |
| 4      | GND      |
| 5      | 13       |
| 6      | 12       |
| 7      | 11       |
| 8      | 10       |
| 9      | 9        |
| 10     | 8        |

| J3 | Function |
|----|----------|
| 1  | A0       |
| 2  | A1       |
| 3  | A2       |
| 4  | A3       |
| 5  | SDA/A4   |
| 6  | SCL/A5   |

| J4 | Function |
|----|----------|
| 1  | 7        |
| 2  | 6        |
| 3  | 5        |
| 4  | 4        |
| 5  | 3        |
| 6  | 2        |
| 7  | TX/1     |
| 8  | RX/0     |

| J5 | Function |
|----|----------|
| 1  | GND      |
| 2  | +3.3V    |
| 3  | RX/0     |
| 4  | TX/1     |
| 5  | 2        |
| 6  | 3        |
| 7  | 4        |
| 8  | 5        |
| 9  | 6        |
| 10 | 7        |

|    |       |
|----|-------|
| 11 | 8     |
| 12 | 9     |
| 13 | 10    |
| 14 | 11    |
| 15 | +3.3V |
| 16 | GND   |
| 17 | GND   |

| J6 | Function |
|----|----------|
| 1  | SCL/A5   |
| 2  | SDA/A4   |
| 3  | TXD0     |
| 4  | RXD0     |
| 5  | A3       |
| 6  | A2       |
| 7  | A1       |
| 8  | A0       |
| 9  | GPIO38   |
| 10 | GPIO37   |
| 11 | GPIO36   |
| 12 | GPIO35   |
| 13 | Reset    |
| 14 | GPIO45   |
| 15 | 12       |
| 16 | 13       |
| 17 | +5V      |

### Mounting Holes and Board Outlines

