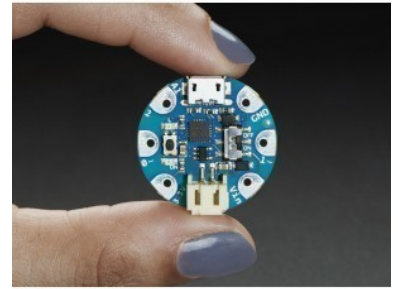**PRODUCT NAME** : Arduino GEMMA - Mini ature wearable electronic platf orm

PRICE : Rs 1,199.00
SKU : RM3351

DESCRIPTION

What do you get when you combine an Adafruit classic with geniuses at Arduino? The Arduino GEMMA! It's a tiny wearable platform board with a lot of might in a 1" diameter package. Powered by a Attiny85 and programmable with an Arduino IDE over USB, you'll be able to realize any wearable project.

This is a collaboration with Arduino.cc and Adafruit. This product is for US Sales only! Use Arduino IDE 1.6.4 or higher for Arduino Gemma support!

We worked with the folks over at Arduino to design a microcontroller board that was small enough to fit into any project, and low cost enough to use without hesitation. Perfect for when you don't want to give up your Adafruit Flora and you aren't willing to take apart the project you worked so hard to design. It's the Adafruit and Arduino lowest-cost sewable controller!

The Attiny85 is a great processor because despite being so small, it has 8K of flash, and 5 I/O pins, including analog inputs and PWM 'analog' outputs. We designed a USB bootloader so you can plug it into any computer and reprogram it over a USB port just like an Arduino (it uses 2 of the 5 I/O pins, leaving you with 3). In fact we even made some simple modifications to the Arduino IDE so that it works like a mini-Flora. Perfect for small & simple projects the Arduino GEMMA will be your go-to wearable electronics platform.

Even though you can program GEMMA using the Arduino IDE, it's not a fully 100% Arduino UNO-compatible. There are some things you trade off for such a small and low cost microcontroller!

- GEMMA does not have a Serial port connection for debugging so the serial port monitor will not be able to send/receive data
- Some computers' USB v3 ports don't recognize the GEMMAs bootloader. Simply use a USB v2 port or a USB hub in between

Here are some useful specifications!

- Super small, only 1.1" / 28mm diameter and 0.28" / 7mm thick.
- Easy-to-sew or solder pads for embedding in your wearable project
- Low cost enough, you can use one for every weekend project
- ATtiny85 on-board, 8K of flash, 512 byte of SRAM, 512 bytes of EEPROM
- Internal oscillator runs at 8MHz
- Ultra low power, draws only 9 mA while running
- USB bootloader with a nice LED indicator looks just like a USBtinyISP so you can program it with the Arduino IDE (with a few simple config modifications)
- Micro-USB jack for power and/or USB uploading, you can put it in a box or tape it up and use any USB cable for when you want to reprogram.

- We really worked hard on the bootloader process to make it rugged and foolproof
- ~5.25K bytes available for use (2.75K taken for the bootloader)
- On-board 3.3V power regulator with 150mA output capability and ultra-low dropout. Up to 16V input, reverse-polarity protection, thermal and current-limit protection.
- Power with either USB or external output (such as a battery) - it'll automatically switch over
- On-board green power LED and red pin #1 LED
- Reset button for entering the bootloader or restarting the program.
- 3 GPIO - The 3 independent IO pins have 1 analog input and 2 PWM output as well.
- Hardware I2C capability for breakout & sensor interfacing.