

ArduCAM

ArduCAM-Mini

Multi-Camera Adapter Board User Guide

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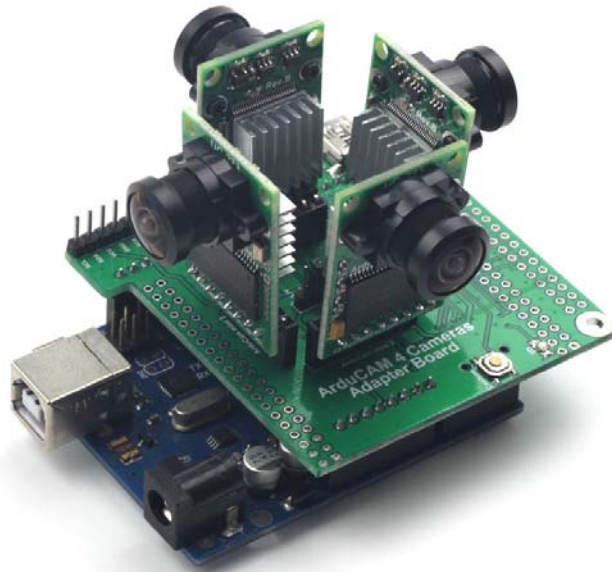


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1 Introduction

ArduCAM-Mini multi-camera adapter board is designed for using up to 4 ArduCAM-Mini camera boards on a single microcontroller including the Arduino, BeagleBone Black and Raspberry Pi platform. The adapter board can be well mated with these popular open source hardware platform but not limited to them, you can also connect this adapter board to any platform you are familiar with as long as they have a free I2C and SPI interface.

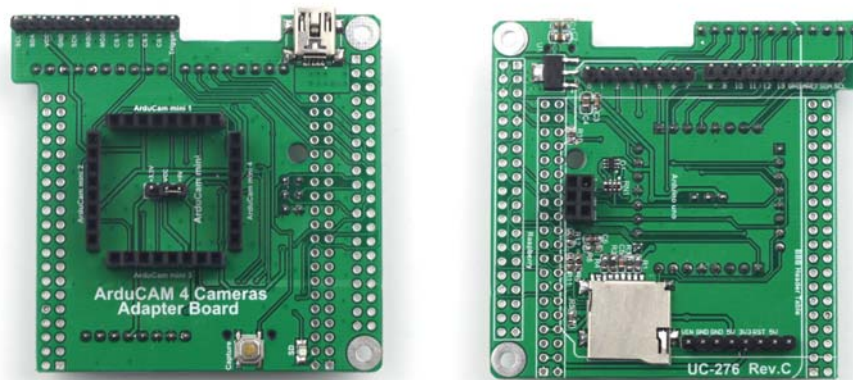


Figure 1 ArduCAM Mini Adapter Board

2 Application

- IoT cameras
- Robot cameras
- Panorama cameras
- Can be used in MCU, Raspberry Pi, ARM, DSP, FPGA platforms

3 Features

- Accommodate up to 4 ArduCAM mini boards
- Onboard SD/TF card storage (only available for Arduino)
- Additional power supply input
- Well mate with Arduino, Raspberry Pi and BeagleBone Black boards

4 Pin Definition

Table 1 lists the pins used for Arduino, Raspberry Pi and BeagleBone Black boards. Please note that the SD_CS signal is only available for Arduino, because the Raspberry Pi and BeagleBone Black have their own SD card.

Table 1 ArduCAM-Mini Adapter Pin Definition

PIN NAME	TYPE	Arduino	Raspberry Pi	BeagleBone Black
Trigger	Input	D2	GPIO8	GPIO3_21 (P9 Pin25)
CS1	Input	D4	GPIO17	GPIO1_28(P9 Pin12)
CS2	Input	D5	GPIO23	GPIO1_16(P9 Pin15)
CS3	Input	D6	GPIO22	GPIO3_19(P9 Pin27)
CS4	Input	D7	GPIO24	GPIO1_17(P9 Pin23)
MOSI	Input	MOSI	GPIO10/MOSI	SPI0_D1(P9 Pin18)
MISO	Output	MISO	GPIO9/MISO	SPI0_D(P9 Pin21)
SCLK	Input	SCLK	GPIO11/SCLK	SPI0_SCLK(P9 Pin22)
GND	Ground	GND	GND	GND
VCC	POWER	+5V	+5V	VDD_5V
SDA	Bi-directional	SDA	GPIO2/SDA	I2C2_SDA(P9 Pin19)
SCL	Input	SCL	GPIO3/SCL	I2C2_SCL(P9 Pin20)
SD_CS	Input	D9	NA	NA