

REVISIONS			
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		DWN/CHK	DATE 07/28/2014	<b>TIDA-00293</b>  <b>DLP 3D Printer</b>  <b>Stepper Motor Cable</b>		
		SYS ENGR				
	0314CP	MANU				
NHA	USED ON	QA		SIZE <b>A</b>	DRAWING NO 2514183	REV <b>A</b>
APPLICATION		APVD		SCALE NONE	SHEET 1 OF 3	

# **TIDA-00293 Stepper Motor Cable Assembly**

## **1. Scope**

The purpose of this document is to establish the assembly requirements for the cable between the BBB MSTP Cape and the NEMA 23 stepper motor used in TIDA-00293 DLP 3D Printer reference design.

## **2. Related Documents**

Minebea Hybrid Stepping Motor 23KM-K Series Product Sheet

- <http://www.eminebea.com/en/product/rotary/steppingmotor/hybrid/standard/data/23km-k.pdf>
- Read Section "Outline" (page 1)

BeagleBone MSTP Cape Schematic

- ../Design Files/BEAGLEBONE MSTP CAPE/BeagleBone MSTP Cape Schematic.pdf
- J2 Motor A Connector (page 1)

## **3. Connections**

Connect the respective stepper motor phases to the corresponding motor phase outputs of the BBB MSTP Cape. The BBB MSTP Cape utilizes Phoenix terminals that require no connectors. Tin the leads to the cape, then screw the leads into J2 on the cape.

Connection	Minebea 23KM-K Motor	BBB MSTP Cape J2 (Tin Leads, No connector)
A	1	1
Az	3	2
B	4	3
Bz	6	4

## **4. Bill Of Materials**

The following table lists the components necessary to construct the stepper motor cable.

Description	Manufacturer	Part Number	Qty
Minebea 23KM-K Motor Connector	JST	XHP-6	1
Minebea 23KM-K Motor Connector Crimps	JST	SXH-001T-P0.6	4
BBB MSTP Cape Connections	N/A	Tin Leads	4

# **TIDA-00293 Stepper Motor Cable Assembly**

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