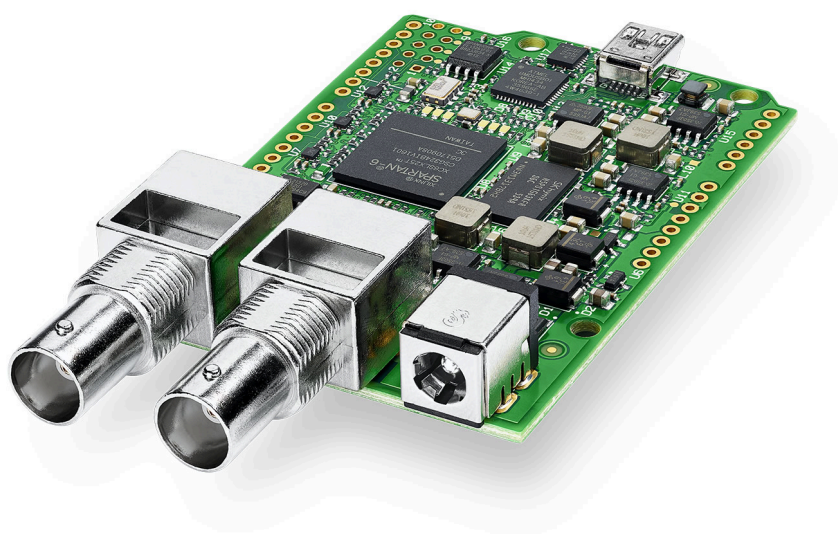# Blackmagic Design Announces New Blackmagic 3G-SDI Shield for Arduino

Now customers can easily create their own completely customized camera control solutions!

NAB 2016, Las Vegas, USA - April 18, 2016 - Blackmagic Design today announced the new Blackmagic 3G-SDI Shield for Arduino which lets customers build their own custom controllers for cameras and other SDI devices. The Blackmagic 3G-SDI Shield for Arduino will ship mid year for $95 from Blackmagic Design resellers worldwide.

The Blackmagic 3G-SDI Shield for Arduino will be demonstrated on the Blackmagic Design NAB 2016 booth at #SL217.

Building custom solutions for controlling cameras via SDI connections is difficult and requires high speed digital design skills. This means it's quite difficult for broadcast engineers who want to integrate Blackmagic Design's cameras into their own custom systems because they would need to build SDI based hardware to do remote control of those cameras using the Blackmagic Camera SDI Control Protocol. To solve this problem Blackmagic Design has created a new SDI expansion board for Arduino micro controllers called the Blackmagic 3G-SDI Shield for Arduino to make it easier for broadcast engineers and technicians to create

custom control solutions for Blackmagic Design cameras.

Arduino is a popular open-source electronics prototyping platform based on easy to use hardware and software. Similar to Raspberry Pi, which is more targeted at software engineers, Arduino is often the choice for hardware developers and is designed as a simpler, more flexible and lower cost way to build all kinds of custom projects.

Expansion boards are called "shields" in the Arduino world and Blackmagic Design decided to take advantage of this standardized expansion capability to build its Blackmagic 3G-SDI Shield for Arduino interface card. Blackmagic Design has also written some sample code that shows how the Arduino communicates with the Blackmagic 3G-SDI Shield for Arduino, and how the shield will then send the camera control commands to the camera.

The Blackmagic 3G-SDI Shield for Arduino is a simple expansion board or "shield" that includes 1 SDI input and 1 SDI output. The SDI input allows any video source to be connected, and the SDI output is connected to the camera and has camera control protocol commands embedded into it. The Blackmagic 3G-SDI Shield for Arduino is very easy to use by a software developer, as they just look up the camera control commands they want to use in the instruction manual and then add them to Arduino software code that sends them to the Blackmagic 3G-SDI Shield for Arduino to be inserted into the SDI link.

The Blackmagic SDI Control Protocol uses the blanking space in an SDI data stream to send commands for things such as camera and lens control, color correction, program return, tally, talkback and more over SDI cables so customers don't have to deploy additional, expensive equipment and run extra cables. The protocol is well documented by Blackmagic Design in product manuals and is now also being supported by third party manufacturers. The Blackmagic SDI Control Protocol is built into Blackmagic cameras, ATEM switchers, DeckLink cards, Video Assist, and viewfinder products.

For example, customers could build a simple controller with a joystick on top of the SDI shield that sends camera control commands to adjust things like focus or iris. The possibilities are endless and customers now have an easy way to create completely customized solutions for use with Blackmagic cameras, switchers, cards and more.

The Blackmagic 3G-SDI Shield for Arduino comes as a simple double sided SDI board, which also provides power to the Arduino. It also features a USB connector for updating the software as Blackmagic Design releases new features in the future. It uses the I2C bus, which means you can even connect it via a cable to the shield if you need to fit into a custom enclosure.

"Making Blackmagic Design products open and accessible lets customers use them in more ways than we could ever think possible," said Grant Petty, CEO, Blackmagic Design. "The Blackmagic 3G-SDI Shield for Arduino combined with products such as the new URSA Mini with our new Studio Viewfinder and studio camera software update is an incredibly powerful combination. It's really a lot of fun to use and we are

excited to see what kind of unique and interesting tools customers are going to build!"

Press Photography

Product photos of the Blackmagic 3G-SDI Shield for Arduino, and all other Blackmagic Design products, are available at www.blackmagicdesign.com.

About Blackmagic Design

Blackmagic Design creates the world's highest quality video editing products, digital film cameras, color correctors, video converters, video monitoring, routers, live production switchers, disk recorders, waveform monitors and real time film scanners for the feature film, post production and television broadcast industries. Blackmagic Design's DeckLink capture cards launched a revolution in quality and affordability in post production, while the company's Emmy™ award winning DaVinci color correction products have dominated the television and film industry since 1984. Blackmagic Design continues ground breaking innovations including 6G-SDI and 12G-SDI products and stereoscopic 3D and Ultra HD workflows. Founded by world leading post production editors and engineers, Blackmagic Design has offices in the USA, UK, Japan, Singapore and Australia. For more information, please go to www.blackmagicdesign.com