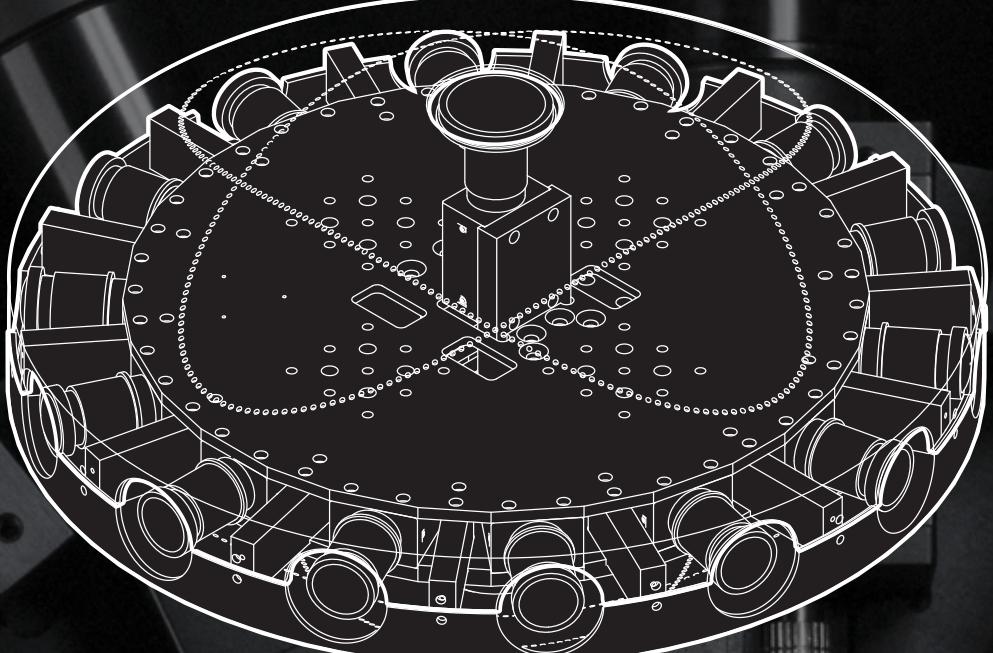


facebook

SURROUND 360

Connecting through VR is an amazing, immersive experience, and we want to do our part to make sure more people have a chance to experience it in the future. We'll open source the Facebook Surround 360 camera design and stitching code to help developers and creators unlock ideas and innovate faster to accelerate the burgeoning 3D-360 ecosystem.



14 wide angle cameras on a horizontal ring



1 fish eye lens on top and 2 on bottom for complete spherical coverage



Global shutter ensures that each camera captures the pixels in sync

HARDWARE

The camera rig is comprised of 17 cameras and was designed with a focus on reliability. A rugged aluminum chassis ensures that images are stable and well aligned, and the industrial cameras can run for hours without overheating.

Top Plate

1/4" thick Mic-6 aluminum alloy
black anodized finish

Fisheye Lens

Fixed focus, focal length: 2.7mm
Manual iris, Iris Range: F1.8 – F16
Angular FOV: 185° × 185° (Φ 8.6 mm)

Cameras

Resolution: 2048x2048 - 4.1 megapixel
Frame rate: 90fps max - Sensor format: 1"
Interface: USB3.0

Wide Angle Lens

Fixed focus, focal length: 7mm
Fixed Iris F2.4 FOV: 77°
Mass: 90 grams

Supports

1/2" thick Mic-6 aluminum alloy
black anodized finish

Cover

18 gauge steel
matte black powder coated

Baby Pin

5/8" Diameter

Bottom Plate

3/8" thick Mic-6 aluminum alloy
black anodized finish

Genlock

8 pins, Hirose HR25 Circular GPIO cables
Camera 0 (Top) = master camera
Camera 1-16 = slave cameras

Bandwidth Specs

1 Gb/s x 17 cameras = 17 Gb/s (@ 30fps)
8 x 1TB SSD RAID: 1 hour of continuous raw video capture
8 x 2TB SSD RAID: 2 hours of continuous raw video capture

Junior Pin

1-1/8" Diameter

SOFTWARE

Our seamless automated stitching technology reduces post-production retouching effort and time. After shooting your video, you can use a Samsung Gear VR headset to view the output as a 3D-360 video with no intervening hand processing or fixing.

