September 12, 2109 Structure SDK **0.10.0**

# Developer Notes / Known Issues List

This SDK is a work in progress, so please bear with us! This SDK is still undergoing stabilization work, but we wanted to get you something you can work with right now. Expect frequent updates as we approach an even more stable version. If you prefer a very stable dev platform, please feel free to skip this release — adventurous developers only!

## Known Issues:

• **Scanner:** You may observe the message “please put the model back in view” in Scanner right after starting a scan. If you observe this more often than with the original Structure Sensor, please contact us.

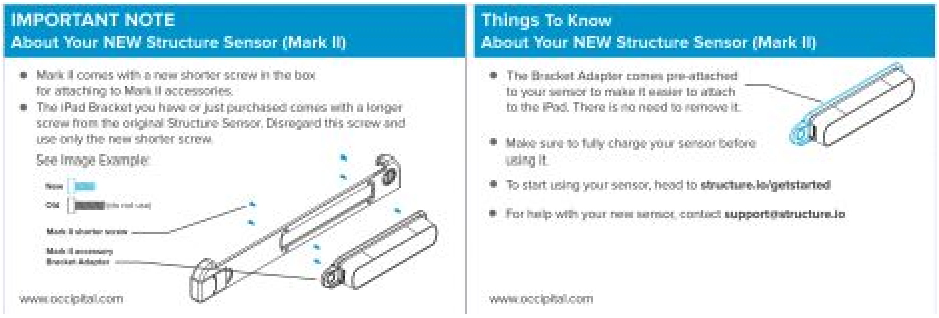
• **Calibrator:**

- The IR frames stream slowly in Calibrator compared to the original Structure Sensor due to - them streaming at a higher resolution. This may be adjusted in the future to prefer high-FPS.
- Sometimes the sensor will stop mid-way through calibrator. If this happens please try reconnecting the sensor and if it continues please restart the app.

• **Wireless Debugging:** You will probably experience a “Timeout” error when wirelessly launching an app with Mark II plugged in. After unplugging the Mark II and plugging it back in, the app may sometimes crash. We intend to fix this problem. As a workaround, you may want to try launching the app wirelessly with the Mark II unplugged, and then plug it in afterwards.

### Hardware Setup:

You will receive a Structure Sensor Mark II that is compatible with your existing Structure Sensor bracket. However, **you need to use the new screws** in the Mark II box, not your original screws. See this graphic for additional information:



IMPORTANT NOTE
About Your NEW Structure Sensor (Mark II)

- Mark II comes with a new shorter screw in the box for attaching to Mark II accessories.
- The iPad Bracket you have or just purchased comes with a longer screw from the original Structure Sensor. Disregard this screw and use only the new shorter screw.

See Image Example:

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Things To Know
About Your NEW Structure Sensor (Mark II)

- The Bracket Adapter comes pre-attached to your sensor to make it easier to attach to the iPad. There is no need to remove it.
- Make sure to fully charge your sensor before using it.
- To start using your sensor, head to **structure.io/getstarted**
- For help with your new sensor, contact **support@structure.io**

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## Change Log from SDK 0.9 to 0.10

• Viewer now renders depth as RGBA on ST01 and ST02A. An SDK function now performs the conversion rather than raw code provided in the SDK. You can still perform your own conversion manually.

• applyExpensiveCorrection is applied to depth frames in the Viewer sample.

• A new message, “Sensor is initializing. Please wait..." will appear now when the sensor is booting up. This helps make it much more clear that the sensor is not yet ready when opening scanner or room capture. Developer apps should adopt this same message for a better user experience.

• Adds a new hasValidExtrinsics to the STDepthFrame API. This is necessary in situations where you want to use a WVL, but may not have a valid calibration. This was added so developers can check if the depth frame has valid extrinsics before calling [depthFrame registeredToColorFrame:colorFrame]. The best course of action is still to rely on the user instructions in STCaptureSession or to check the [STCaptureSession calibrationType] property to see whether or not users should run calibrator prior to using the app,however, hasValidExtrinsics is a faster call and can be checked in your rendering pipeline directly when you get a depth / color frame pair. This way you don’t need to pass around the capture session to your rendering code and can still check if depth frames can be registered to iOS color frames.

• Some references to C++ throw in the sample apps have been changed to Objective-C @throw for consistency. You should generally not expect to have to catch C++ exceptions from Structure.framework in your apps.

• Tracking in room capture has been dramatically improved.