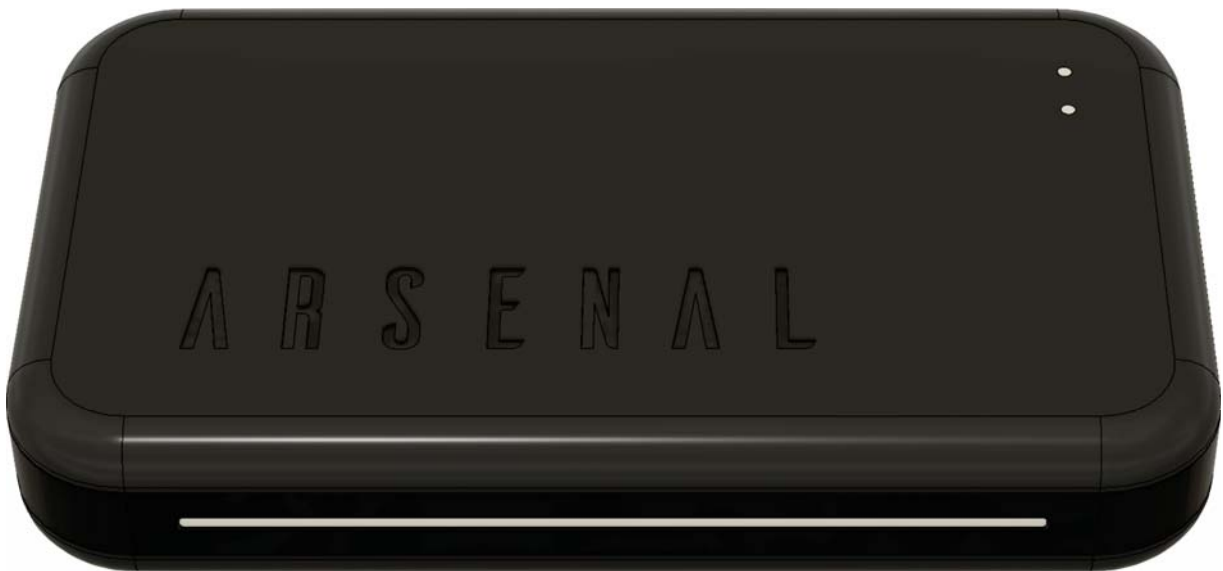


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NORTH OF YOU

Arsenal 2 Pro User's Manual



North of You, LLC
90 West Madison Ave
Suite E-237
Belgrade, MT 59714
Phone: 1-877-727-7362

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1. Document Overview

This document contains the specifications and features of Arsenal 2 Pro - The Intelligent Camera Assistant. It also contains setup and maintenance instructions.

2. Document Revision History

Date	Revision	Revision Changes
2021/02/09	0.1	Initial creation of the document.
2021/04/07	0.2	Updated Regulatory Screenshot from App.
2021/05/07	0.3	Updated Regulatory information.

3. Arsenal 2 Pro Overview

Arsenal 2 Pro is an intelligent camera assistant. It connects to a DSLR or mirrorless camera over USB and allows for remote control of the camera from a smartphone via WIFI. Arsenal 2 Pro provides tools to assist in photo stacking, timelapses, and producing long exposures. Lastly, it uses machine learning to suggest settings to the user based on the current subject being photographed and data from the camera and onboard sensors.

4. Arsenal 2 Pro Specifications

a. Input Power

Charger	
Input Power	Rating
AC Power	100-240VAC 50/60Hz Max 0.3A
Arsenal 2 Pro	
Input Power	Rating
USB Charger Connection	5VDC 1.0A

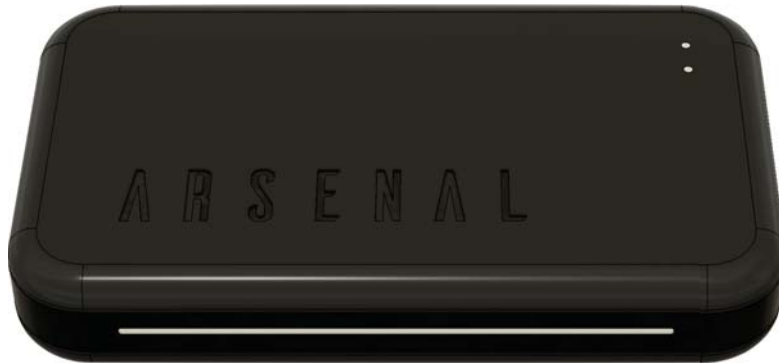
b. Operating Environment

Factor	Metric	US
Temperature	0°C to 35°C	32°F to 95°C
Humidity	10% to 90%	10% to 90%

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5. What's included with Arsenal 2 Pro?

a. Arsenal 2 Pro



b. Coiled USB Cable



c. Charger and Charger Cable

- i. Note: Not included in non-US models.



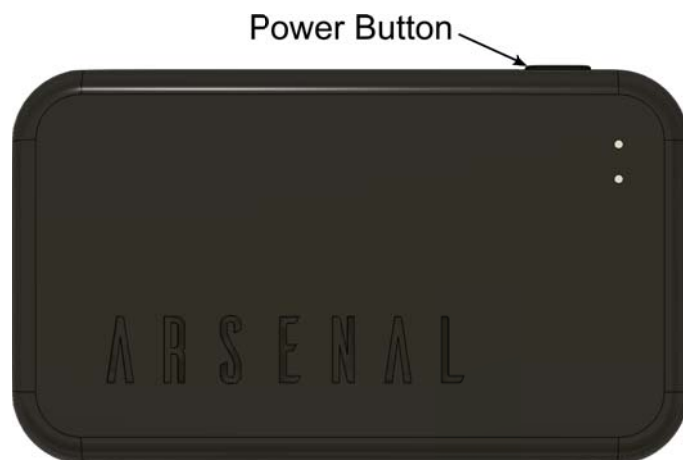
d. Phone App



- i. Downloaded from the Google Play Store or Apple App Store.

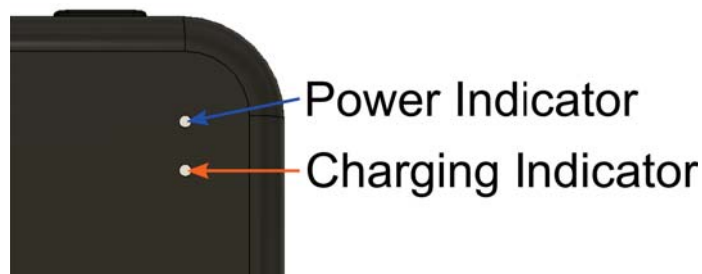
6. Quick Tour of Arsenal 2 Pro

a. Power Button



- i. Button to power On and power Off Arsenal 2 Pro.
- ii. If Arsenal 2 Pro is Off, a single momentary short press will power On Arsenal 2 Pro. The power indicator will illuminate and the LED Bar will display an animation after Arsenal 2 Pro has booted.
- iii. If Arsenal 2 Pro is On, a single momentary short press will power Off Arsenal 2 Pro. The LED Bar on Arsenal 2 Pro will display a short animation before powering off.

b. Status Indicators



Power Indicator	
Off	Arsenal 2 Pro Powered Off
On	Arsenal 2 Pro Powered On

Charging Indicator	
Off	Arsenal 2 Pro not charging
On	Arsenal 2 Pro charging
Blinking	Charger Halted

c. Charger Connector



- i. Used to charge Arsenal 2 Pro with the provided Charger and Charger Cable.

d. Camera Connector



- i. Used to connect Arsenal 2 Pro to the Camera with the Coiled USB Cable.

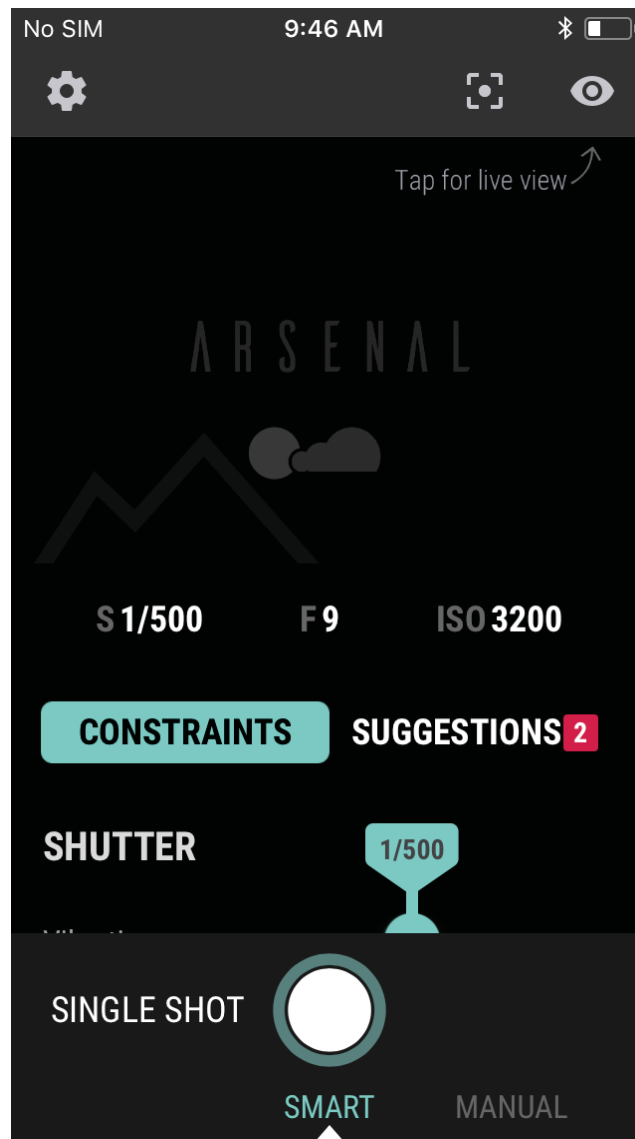
e. Hot Shoe Slide



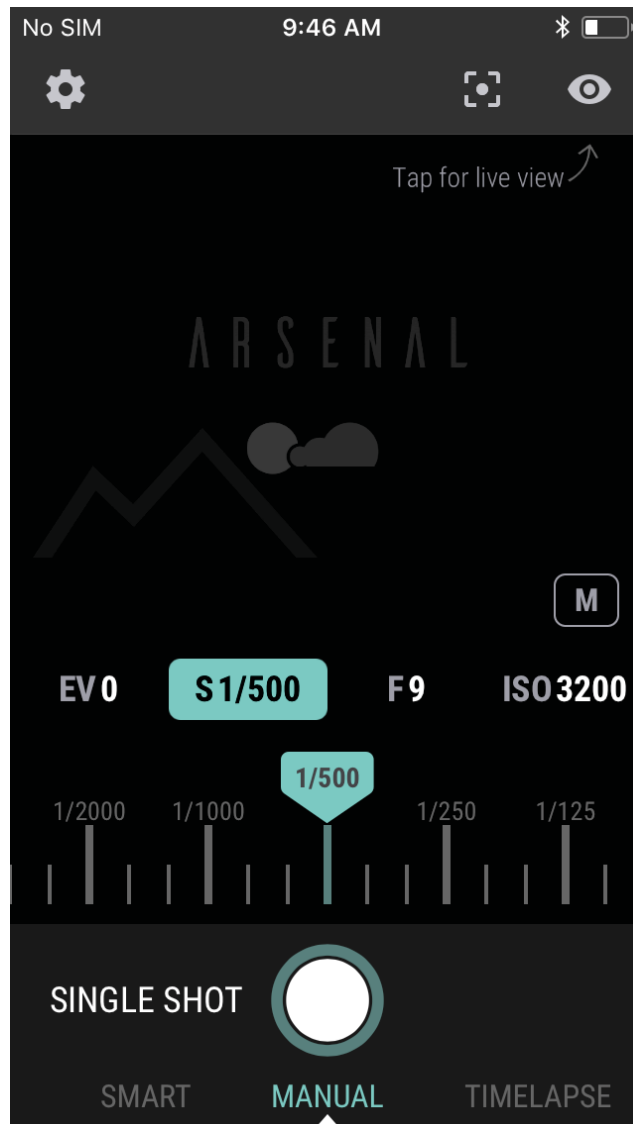
- i. Used to secure Arsenal 2 Pro to the Hot Shoe on a DSLR or mirrorless camera.

7. Quick Tour of App

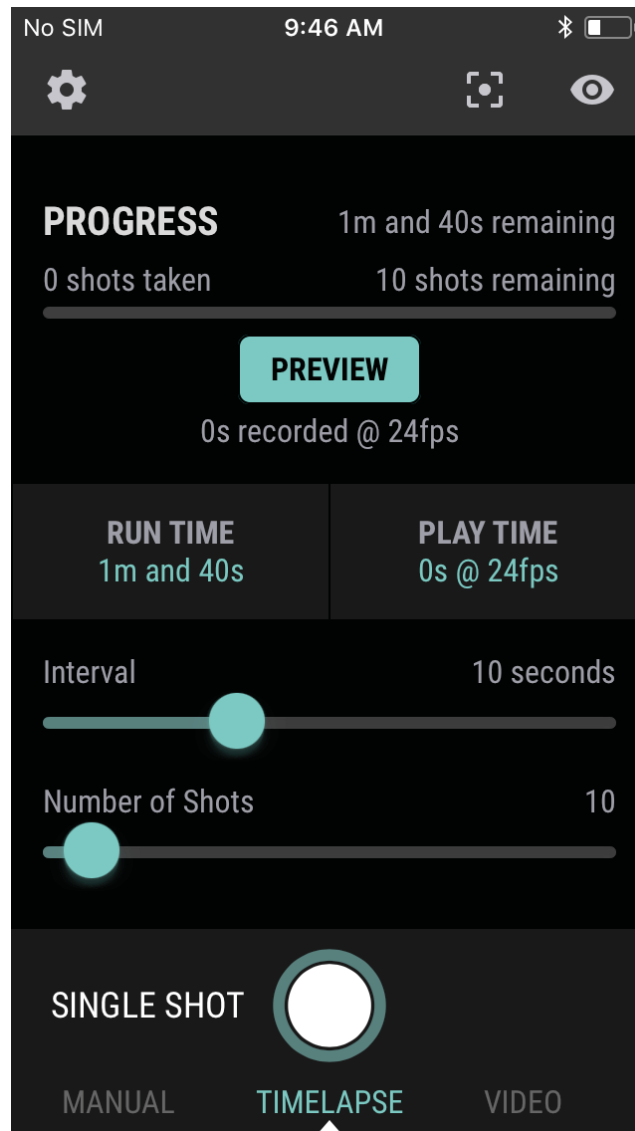
a. Smart Mode



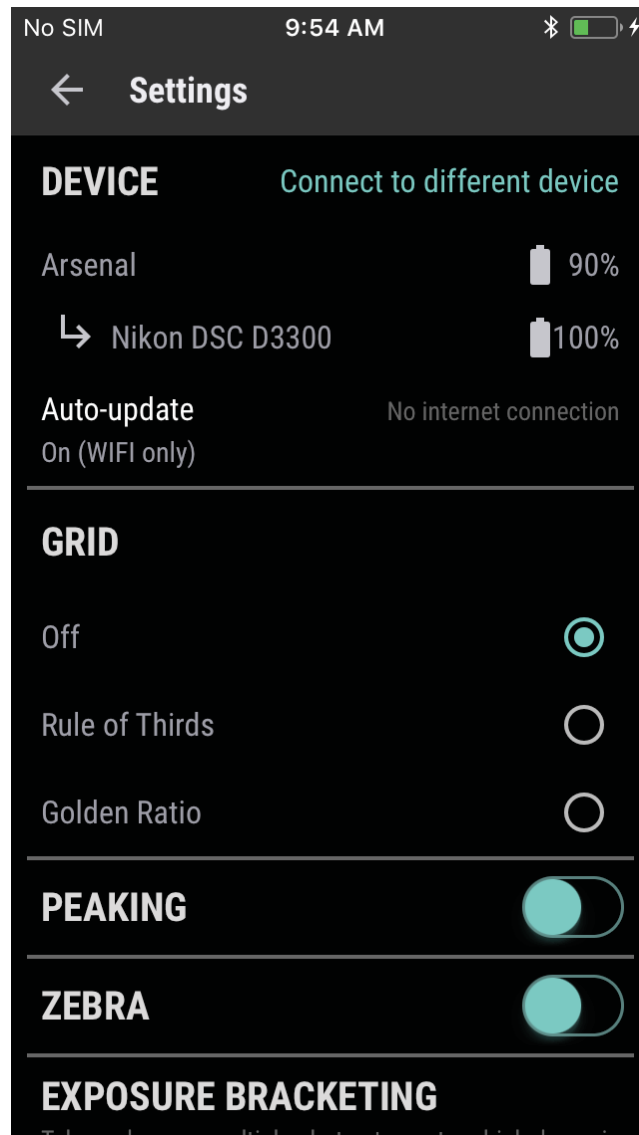
b. Manual Mode



c. Timelapse



d. Settings



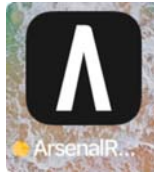
8. Setup Instructions

a. Instructions

- i. Slide the Arsenal 2 Pro into the Hot Shoe of the Camera.
- ii. Connect the Coiled USB Cable to the Arsenal 2 Pro and USB Connection on the Camera.



- iii. Turn the Arsenal 2 Pro On and allow it to boot. This will take about 15 seconds.
- iv. Set the Camera to Aperture Mode and turn it On.
- v. On the Phone, open the Arsenal 2 App.



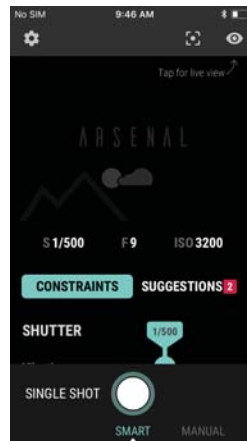
- vi. Select "Get Started" and "Add New Arsenal."
- vii. The Arsenal 2 App should momentarily state "Scanning for Arsenal devices..." before connecting to Arsenal 2 Pro.



- viii. After the Phone has connected to the Arsenal 2 Pro, the screen will update to the main application screen. Arsenal 2 Pro is now ready to use.

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9. Charging Instructions

Arsenal 2 Pro can be charged by any standard 5V USB Port.

a. To charge:

- i. Connect the provided Charger* to a compatible wall outlet.
- ii. Connect the provided Charger Cable to the Charger.
- iii. Connect the other end of the Charger Cable to the Charger Connector on Arsenal 2 Pro. If Arsenal 2 Pro was already On, the Amber Charging Status Indicator will illuminate. If Arsenal 2 Pro was Off, it will momentarily turn On and display a brief animation before turning back Off, but the Amber Charging Status Indicator will remain illuminated.
- iv. Allow 2 to 3 hours to fully charge. Arsenal 2 Pro is fully charged when the Amber Charging Status Indicator turns Off. Disconnect the Arsenal 2 Pro from the charger when complete.
- v. Note: Do not leave Arsenal 2 Pro connected to the Charger for extended periods of time.

*Charger only provided in US models.

10. Important Handling Information

a. USB Ports and Button

- i. Never force a plug into a port or apply excessive pressure to a button, because this may cause damage. If the plug and port don't join with reasonable ease, they probably don't match or the plug is backwards. Check for obstructions and make sure that the plug matches the port and that you have positioned the plug correctly in relation to the port.

b. Arsenal 2 Pro Temperature

- i. Arsenal 2 Pro is designed to work in ambient temperatures between 32° and 95° F (0° and 35° C). Arsenal 2 Pro can be damaged and battery life shortened if operated outside of these temperature ranges. Avoid exposing Arsenal 2 Pro to dramatic changes in temperature or humidity.
- ii. When using Arsenal 2 Pro or charging the battery, it will get warm. You will notice that your device feels warmer in these situations:
 1. When you set up your device the first time
 2. Performing CPU/GPU intensive image processing tasks, such as Focus Stacking.
 3. Transferring a large number of photographs between your Camera and Arsenal 2 Pro.
 4. Transferring a large number of photographs between Arsenal 2 Pro and your Phone.
 5. Charging the battery.
- iii. These conditions are normal, and Arsenal 2 Pro will return to a normal operating temperature when complete.
- iv. If the interior temperature of Arsenal 2 Pro exceeds the normal operating range, it will protect its internal components by attempting to regulate its temperature. If this happens, you might notice these changes:
 1. Image processing tasks take longer to complete.
 2. Transfer rates between your Camera and Arsenal 2 Pro decrease.
 3. Transfer rates between Arsenal 2 Pro and your phone decrease.
 4. Charging rate decreases.
- v. The performance will automatically return to normal when Arsenal 2 Pro returns to a normal operating temperature.

c. Storage

- i. When not in use, Arsenal 2 Pro should be stored in a place that ensures it is protected from moisture, excessive force, and extreme temperatures. Store Arsenal 2 Pro where the temperature is between -4° and 113° F (-20° and 45° C). Arsenal 2 Pro can be damaged and battery life shortened if stored outside of these temperature ranges. Do not leave Arsenal 2 Pro in your car, because temperatures in parked cars can exceed this range.

d. Cleaning

- i. From time to time, Arsenal 2 Pro may require cleaning to remove dirt, grease, moisture, etc.
- ii. To clean:
 - 1. Power Arsenal 2 Pro Off and disconnect all accessories.
 - 2. Gently wipe the surface of Arsenal 2 Pro using a soft, lint-free cloth moistened with a very small amount of water. Allow Arsenal 2 Pro to dry completely before use.

e. Disposal

- i. Dispose of your Arsenal 2 Pro and accessories according to your local environmental laws and guidelines. Do not dispose of them in normal household waste. Improper disposal may result in fire, explosion, leakage, or other hazards. Do not open, crush, heat above 113° F (45° C), or incinerate.

11. Safety Warnings

To avoid damaging your Arsenal 2 Pro, and to reduce the risk of fire, burns, or electric shock, follow these precautions:

- i. Handle your Arsenal 2 Pro with care. You may damage your Arsenal 2 Pro or its battery if you disassemble, drop, bend, burn, crush, or puncture it. Do not use a damaged Arsenal 2 Pro. Using a damaged Arsenal 2 Pro may cause battery overheating or injury. Do not expose your Arsenal 2 Pro to liquids, which can cause a short circuit and overheating. If your Arsenal 2 Pro gets wet, do not attempt to dry it using an external heat source. Arsenal 2 Pro is designed to work best in ambient temperatures between 32° and 95° F (0° and 35° C), and should be stored between ambient temperatures of -4° and 113° F (-20° and 45° C). Do not expose your Arsenal 2 Pro to temperatures above 113° F (45° C) as this may damage the Arsenal 2 Pro, overheat the battery, or pose a risk of fire. Do not leave Arsenal 2 Pro in your car, because temperatures in parked cars can exceed this range. Do not attempt to open and repair Arsenal 2 Pro.
- ii. Be sure the charger and Arsenal 2 Pro are well ventilated when in use or charging. Using damaged cables or chargers, or charging when moisture is present, can cause fire, electric shock, injury, or damage to the Arsenal 2 Pro and property. When charging the Arsenal 2 Pro, make sure the charger is plugged into a socket near the Arsenal 2 Pro and is easily accessible. Avoid charging your Arsenal 2 Pro in direct sunlight. Arsenal 2 Pro is intended for use with a certified Limited Power Source (LPS) per IEC 60950-1 rated: 5 Volts DC, maximum 3 Amp. Only charge your Arsenal 2 Pro with the included charger and cable, or compatible charging accessories. Failure to use compatible charging accessories can cause fire, electric shock, injury, or damage to the Arsenal 2 Pro and property. Disconnect Arsenal 2 Pro from the charger when charging is complete. Do not leave Arsenal 2 Pro connected to the charger for extended periods of time.
- iii. Arsenal 2 Pro contains a rechargeable lithium-ion battery which is a sensitive component that can cause injury if damaged. It is not user replaceable. Do not attempt to remove the battery. Do not attempt to replace the battery.

12. Troubleshooting Tips

Item #	Problem	Potential Solution
1	Arsenal 2 Pro will not turn Off after a single button press.	1. Press and hold the Power Button until the Green Status Indicator on Arsenal 2 Pro turns Off. This takes approximately 8 seconds.
2	Arsenal 2 Pro will not turn On after a single button press.	1. Charge Arsenal 2 Pro for two to three hours. Press and hold the Power Button until the Green Status Indicator on Arsenal 2 Pro turns On. This takes approximately 1 second.

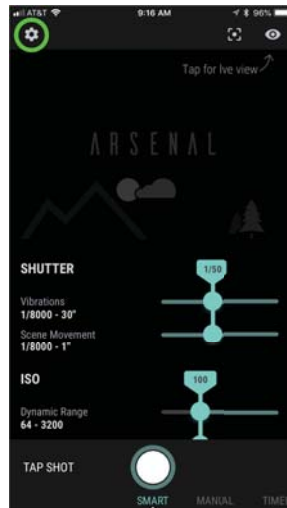
a. Contacting Support

- i. If you're still having issues with Arsenal 2 Pro, please contact customer support at support@witharsenal.com.

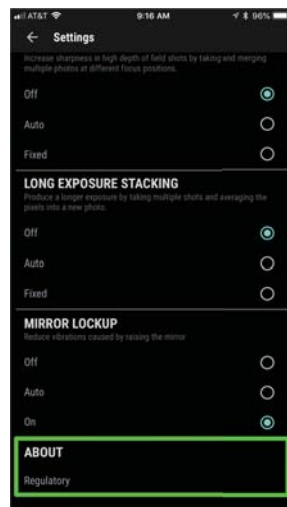
13. Regulatory Information Model - Robert

a. Regulatory Screen in the Arsenal 2 App

- i. To find the regulatory information for Arsenal 2 Pro, please follow the instructions below:
 1. Open the Arsenal 2 App and select the Settings icon (gear):



-
2. Scroll to the bottom and select Regulatory:



-
-
3. The regulatory screen, similar to the following, will appear:

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b. RF Transmitter

i. Maximum RF Transmitter Power

Standard	Frequency Band	Maximum RF Power
iEEE 802.11b	2.4GHz	17.72dBm
iEEE 802.11g	2.4GHz	21.24dBm
iEEE 802.11n	2.4GHz	20.76dBm
iEEE 802.11a	5.2GHz	12.84dBm
iEEE 802.11n	5.2GHz	13.77dBm
iEEE 802.11ac	5.2GHz	13.12dBm
iEEE 802.11a	5.8GHz	12.04dBm
iEEE 802.11n	5.8GHz	13.13dBm
iEEE 802.11ac	5.8GHz	13.17dBm
BLE	2.4GHz	5.448dBm

- ii. Note: Due to regional restrictions, not all WiFi channels are available everywhere.
- iii. This U-NII device ensures frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in this user's manual.

c. SAR

- i. Specific Absorption Rate (SAR) is a measure of the rate at which a human body absorbs energy when exposed to a radio frequency (RF) electromagnetic field. The radio in Arsenal 2 Pro is designed to not exceed the SAR limits adopted by the international regulatory agencies listed below when operated at a minimum distance of 0mm.

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Standard	Measured	Limit
FCC	1.148W/kg	1.6W/kg
IC	1.148W/kg	1.6W/kg
CENELEC	0.495W/kg	2.0W/kg

d. FCC

- i. FCC ID: 2AOYX-NOYP3
- ii. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- iii. Any changes or modifications not expressly approved by North of You, LLC will void the user's authority to operate the equipment.
- iv. Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
 1. Reorient or relocate the receiving antenna.
 2. Increase the separation between the equipment and receiver.
 3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 4. Consult the dealer or an experienced radio/TV technician for help.
- v. FCC RF Exposure requirements: The highest SAR value reported under this standard during product certification for use next to the head with the minimum separation distance of 0mm is 1.148W/Kg. This transmitter must not be collocated or operating in conjunction with any other antenna or transmitter.
- vi. This equipment is in compliance with the FCC requirements for maximum RF exposure. For more information, please refer to the following FCC website and search for FCC ID: 2AOYX-NOYP3:
<https://apps.fcc.gov/oetcf/eas/reports/GenericSearch.cfm>

e. IC

- i. IC: 23616-NOYP23

- ii. This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:
 - 1. This device may not cause interference.
 - 2. This device must accept any interference, including interference that may cause undesired operation of the device.
- iii. L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :
 - 1. L'appareil ne doit pas produire de brouillage;
 - 2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
- iv. This EUT is compliance with SAR for controlled exposure limits in IC RSS-102 at operating duty factors of up to 100% and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528 and IEC 62209. This equipment should be installed and operated with minimum distance 0 mm between the radiator and your body. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.
- v. Cet EUT est conforme au SAR pour les limites d'exposition contrôlées dans IC RSS-102 à des facteurs de service allant jusqu'à 100% et a été testé conformément aux méthodes et procédures de mesure spécifiées dans IEEE 1528 et IEC 62209. Cet appareil doit être installé et utilisé avec une distance minimale de 0 mm entre l'émetteur et votre corps. Cet appareil et sa ou ses antennes ne doivent pas être co-localisés ou fonctionner en conjonction avec tout autre antenne ou transmetteur.

f. Europe

- i. North of You, LLC declares under their sole responsibility that Arsenal 2 Pro, Model Number Robert (marketing Name: Arsenal 2 Pro), is in conformity with the essential requirements and other relevant requirements of the following directives of the European Parliament and European Council; Directive 2014/30/EU, Directive 2014/35/EU, Directive 2014/53/EU, and Directive 2011/65/EU.



g. Australia

