

Software Guide of EZ PUSH TO 2019 on iOS

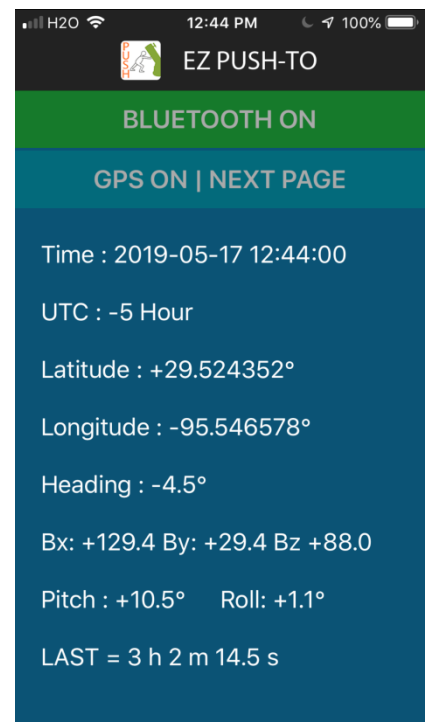
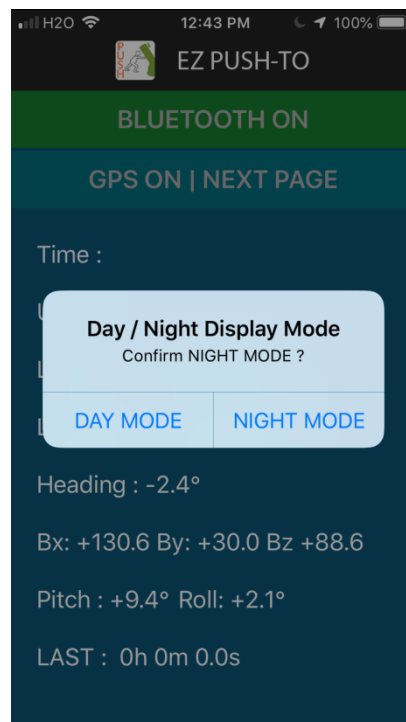
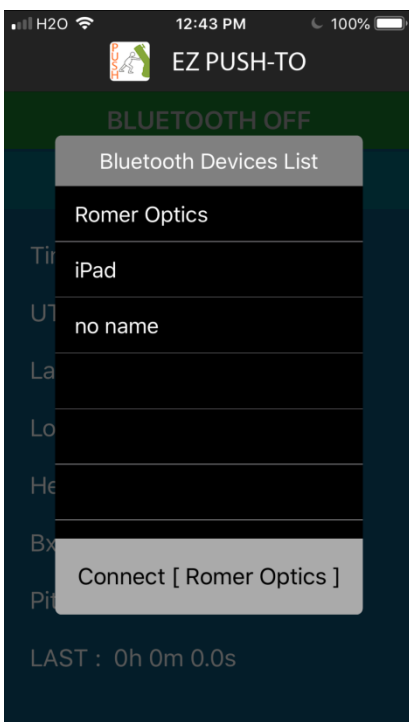
2019.5.15 Ver1.0

1. Devices should be iPhone 6S+ or later models
2. Search "EZ PUSH TO" and Install the app from Apple Store
3. Turn ON "Bluetooth" in iPhone settings. **Do not pair** the Bluetooth device named "Romer Optics". You must connect the BT via our App
4. Power On the EZ PUSH TO Kit installed on your Dobsonian
5. Run the app "EZ PUSH TO"

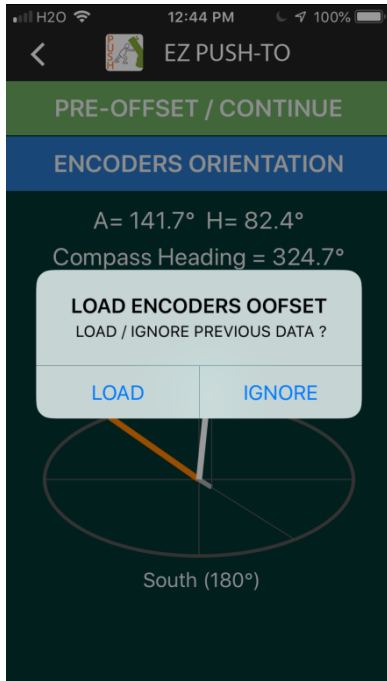
1. Please wait seconds to load star database



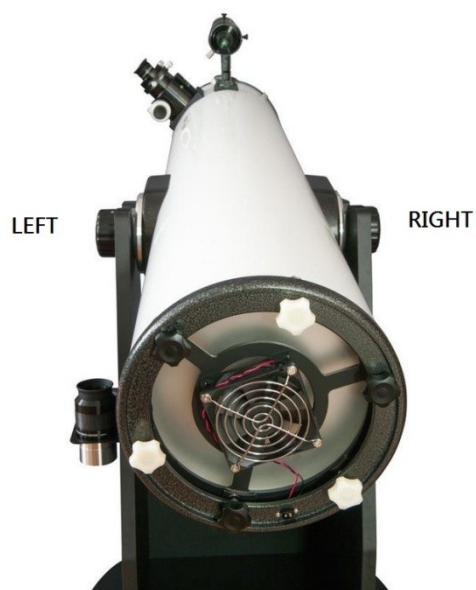
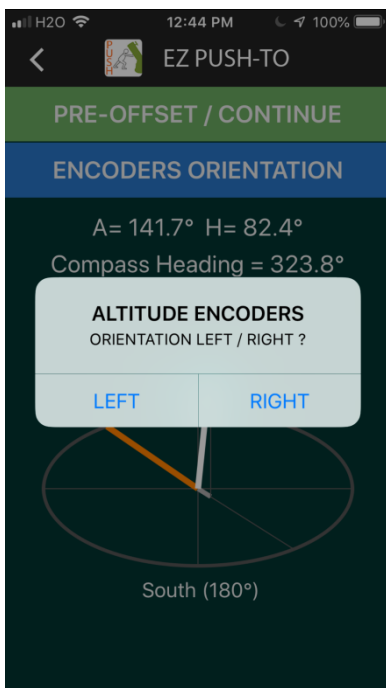
2. Click "BlueTooth OFF", connect "Romer Optics" in the devices list
Activate "GPS ON" to confirm UTC / Longitude / Latitude
*UTC = Time Zone + DST (daylight saving time)



3. "Load Encoders Offset dialog" does not show up in your first time.
 "Ignore" encoder offset to start a new stargazing. or
 "Load" to restore previous encoders alignments data.
 *"Load" causes faulty az/alt output even if your Dob's base was slightly moved



4. Set the ALT encoder installed at LEFT/RIGHT(default) hand side
 *wrong side makes altitude encoder readout reversely.



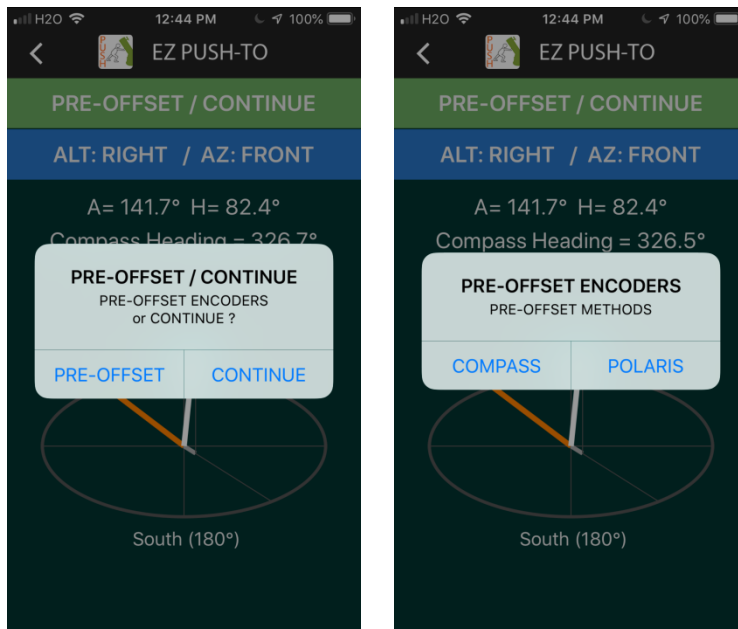
5. Pre-Offset Encoders

Find and Locate Polaris in your Dobs's eyepiece

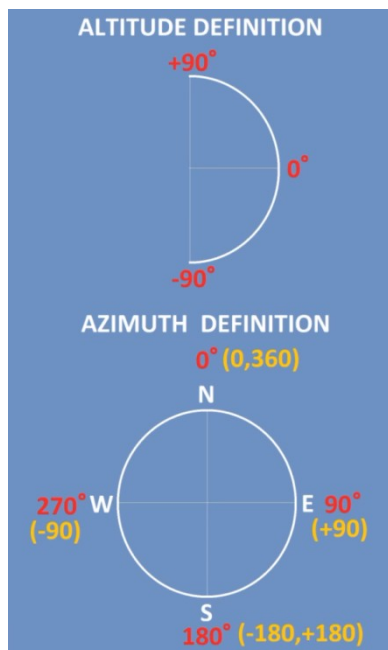
Click "POLARIS" to complete it

* offset encoders could be faulty without calibrated compass in the handset.

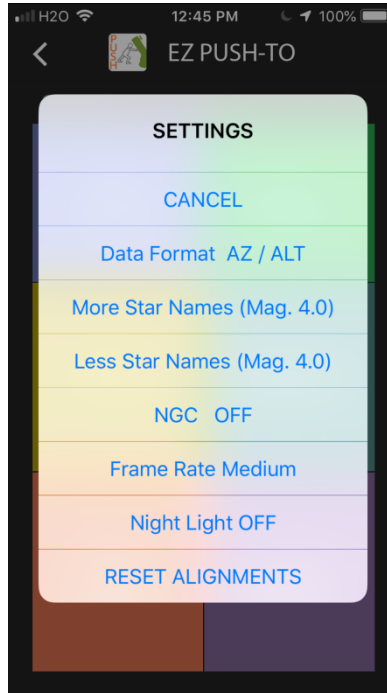
*avoid Compass Offset except that stars are invisible at daytime



*After Pre-Offset Encoders, check and confirm az/alt displayed correctly.



6. Settings on the left top of Menu / Click "Cancel" to leave it
- *"High Frame rate" probably causes handset showing fewer stars and narrower FOV on slower or outdated handset.
 - *"NGC ON": All NGC objects only appear in the Starry Roaming when FOV is less than 12 degree.



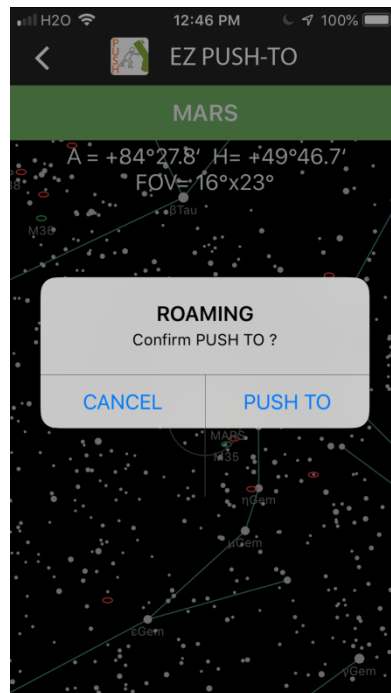
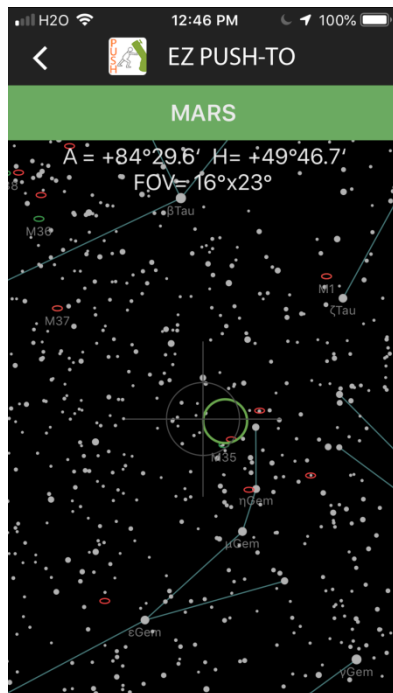
7. Roaming

Push Dobsonian to browse popular objects (for example : Mars)

app helps to select the closest target. Click the top “Green Label” to push to

*popular objects: 110 Messier / Herschel 400 List / NGC (enable it in settings) /

double and binary star / asteroids (enable it in solar system)

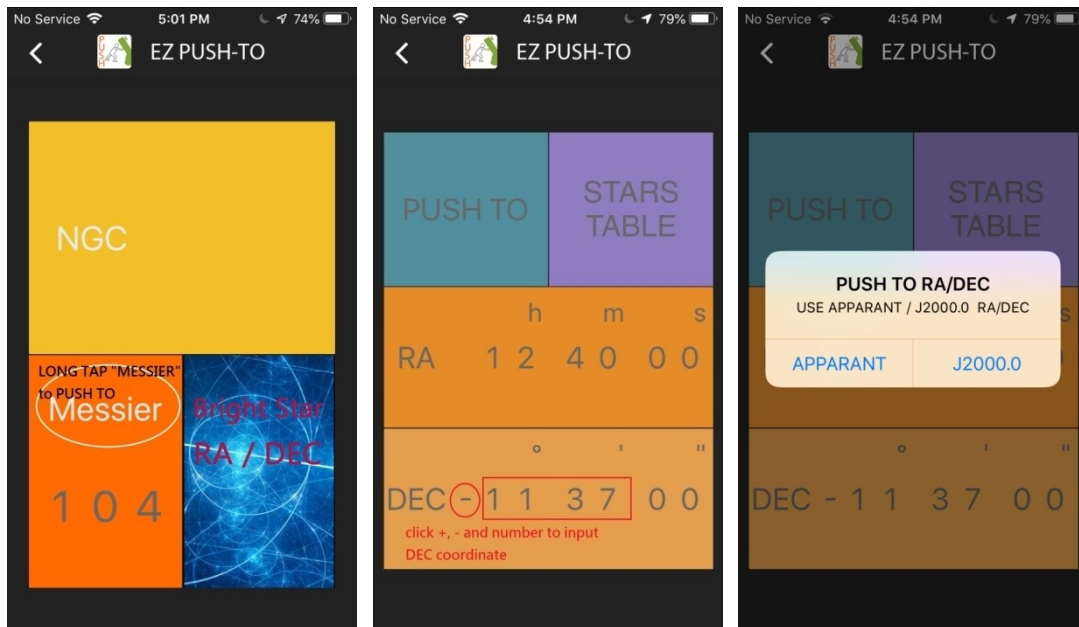


8. Deep Sky Outlook

Click "number" to set Messier or NGC object

LONG PRESS "Messier" or "NGC" to push to the target

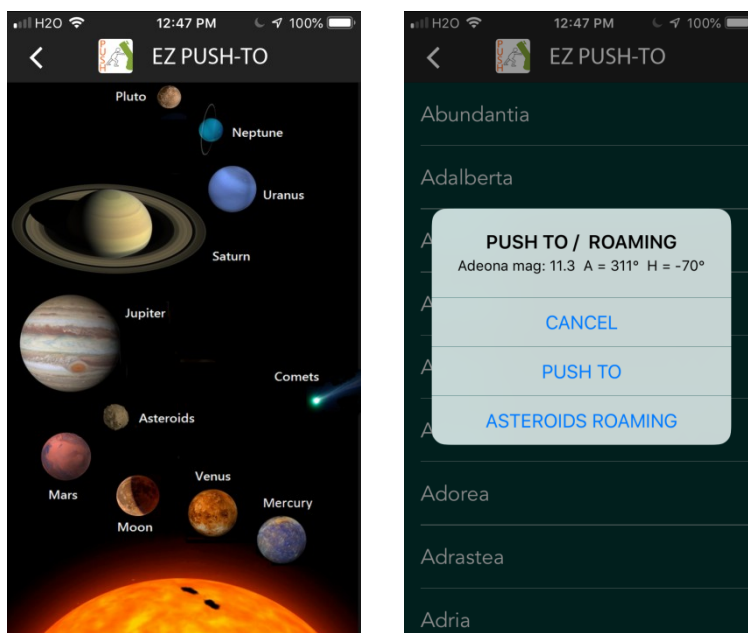
Input self-defined RA/DEC / Select a star in 88 Brightest Star Table



9. Solar System

Click the picture to select planet / coming comets / Asteroids

*Asteroid includes more than 700 brighter objects which could be visible. You may select one or "Asteroid Roaming" to browse them at the same time.



10. Push To

Arrows on the sky map (up/down/left/right) and a blink Circle guides your Dob to the selected target.

*"Encoder Offset" is used to improve system accuracy when the selected target is not displayed consistently.

Locate the target in your eyepiece, click "Encoder Offset" to complete the calibration. The more calibration you did, the more accurate your Dob could be.

You can reset encoders offset in settings when you did wrong calibration.

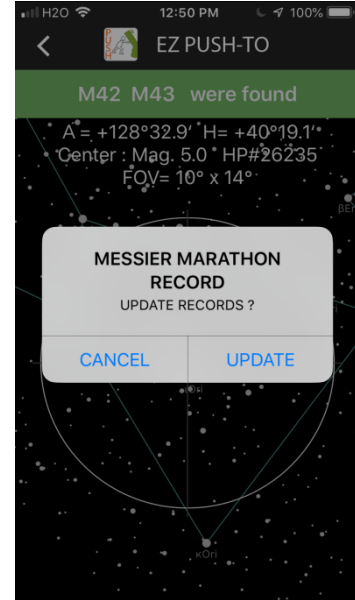
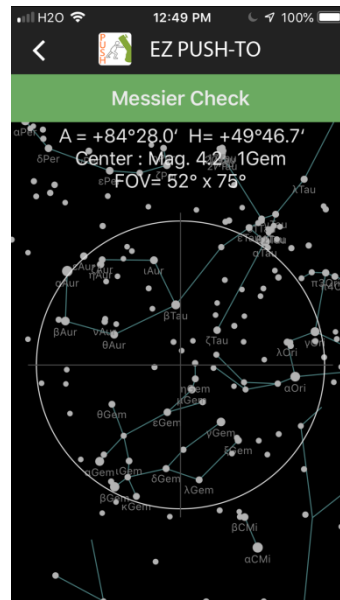


11. Messier Marathon

Train yourself to search Messier Object for fun

Push you Dob to search Messier objects. The app helps you to record whether you find the object successfully or not.

Click “Messier Check” when ready. Update your record if the objects are found.



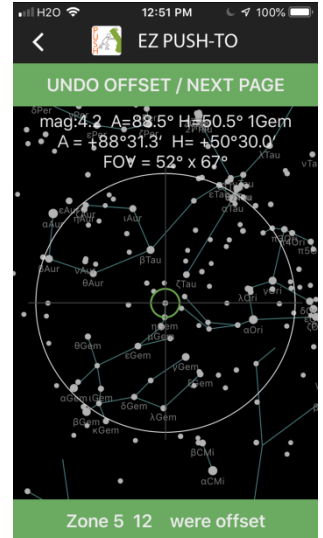
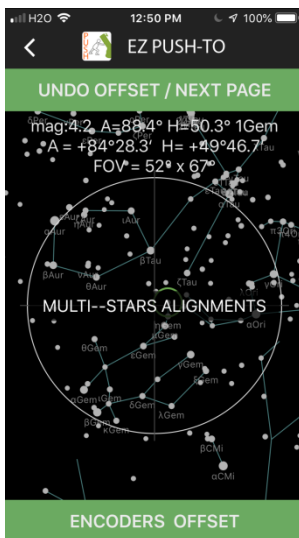
12. Multi-Star Alignment

Polaris / One star alignment provide acceptable accuracy for quick stargazing. More stars are selected to calibrate system, more accurate your Dobsonian could be.

- Please level your Dob as perfect as possible by 3 bubbles level meter.
- Push Dob to browse targets. Click "Green Label (Encoder Offset)" at the bottom to select the aligned target.
- Locate the selected aligned target in your eyepiece.
- Click "Green Label" again to offset the encoder when ready.
- Choose another target for next calibration.

*At least 3 star alignments are required. The spacing between selected aligned stars must be as wide as possible (for example az = 0 / 120 / 240 degree, alt is about 45 degree)

*At most 12 stars (12 zones, one star every 30 degree) are applied for alignments.



13. PEC

Periodic Error Correction is easily explained in text document. Please watch the [clips on Youtube](#).