

CALIBRATE IMU

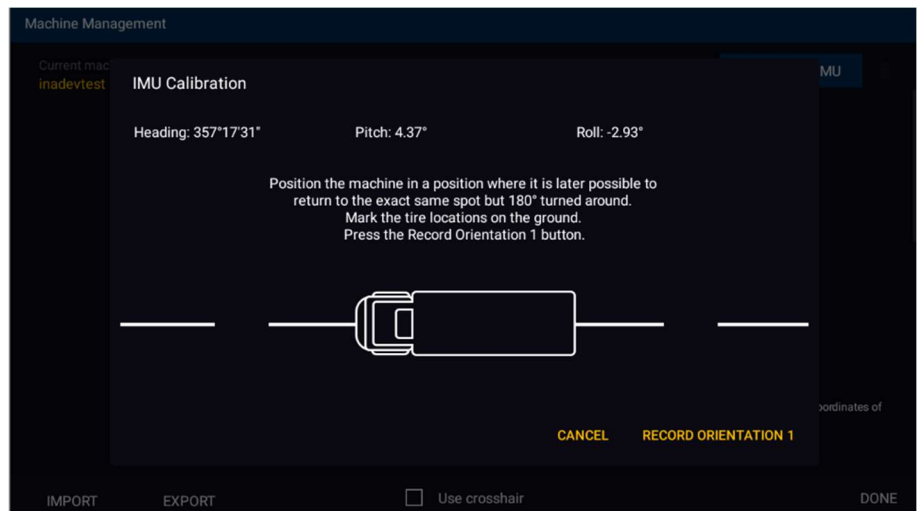
Calibrating the IMU

Once the current machine has been set, the “Calibrate IMU” button will replace the “Set as Current Machine” button. To calibrate the IMU mounting and sensor bias, tap the **CALIBRATE IMU** to initiate a calibration routine.

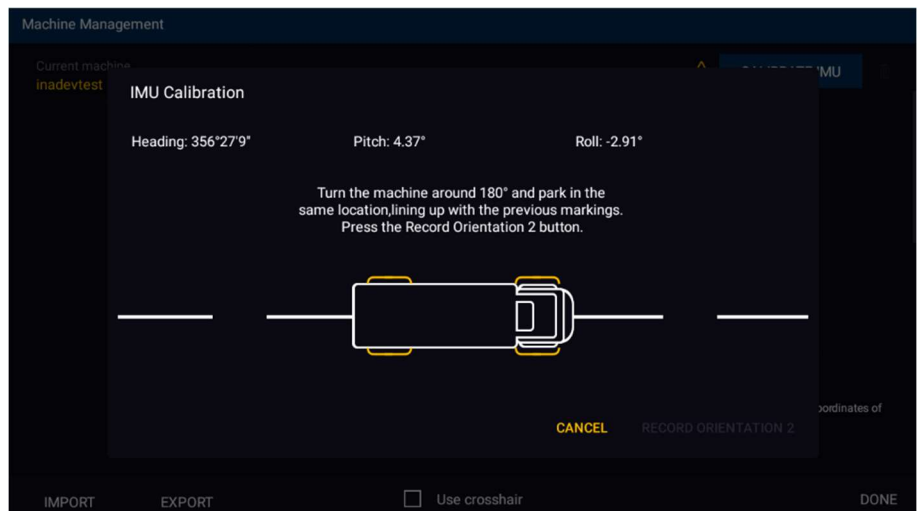
- *To eliminate any minor mounting and hardware biases, INA recommends performing a calibration after installation and before using the system.*

The routine will guide you through a procedure for determining any bias that exists. You will be required to drive the machine to a location that you can return to pointed in the opposite direction.

For the calibration, you first need to drive forward slightly (for the IMU to align), then stop, mark the tire locations, and tap **Record Orientation 1**. GuidEx will then record the IMU orientations for 15 seconds.

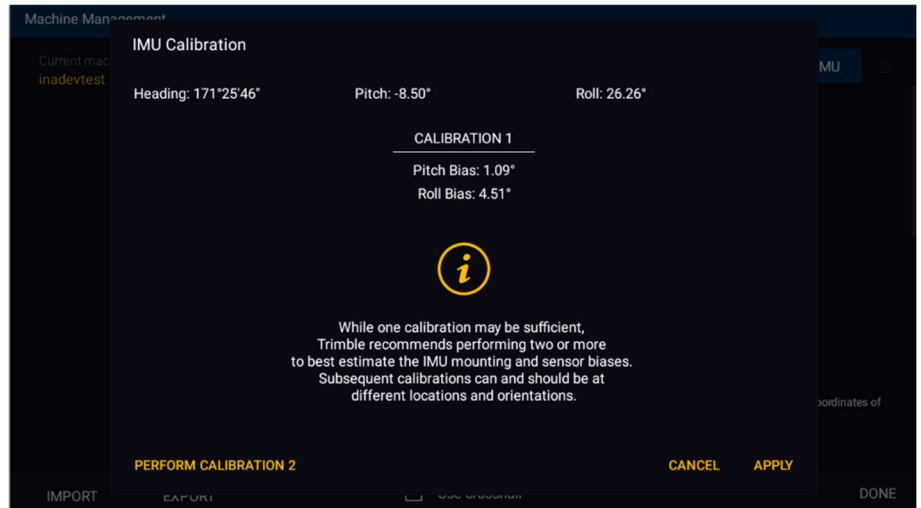


Once complete, drive forward and circle back around to place the wheels back on the tire marks facing 180 degrees of the first orientation recording and press **Record Orientation 2**.



- Note that the Record Orientation 2 icon will not become enabled until the machine’s heading has changed at least 100 degrees from the heading of orientation 1.

Once orientation 2 has been recorded, a dialog appears showing the biases applied. You can then either apply these settings and be finished, or perform a second round of calibrations, repeating the same steps.



- You can perform up to three calibrations. Each additional calibration performed improves the overall averaging and applied biases to the IMU for more reliable data during operation.
- These calibration values are tied to the machine name of the model used during calibration. If you perform the calibrations and then add a new current machine model, the calibration needs to be performed again for that new machine; calibrations are tied to the machine name.