

GROUNDHOG

MINE DIGITIZATION & AUTOMATION

**User Guide for
Bolting Activity:
FMS Operator App**

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Overview

The FMS Operator App has been designed to accommodate various workflows, and this user guide specifically focuses on the bolting workflow. This comprehensive document is intended to guide users through the fundamental steps of utilizing the app for bolting activities. Below is an elaborate overview of the key functionalities covered in this guide:

Task Acceptance / Creation:

- **Navigation:** Learn how to navigate through the app's interface to start an assigned task or create a new one.
- **Task Details:** Enter essential task information such as engine hours, location, etc.

Recording Information:

- **Data Entry:** Enter data to record pertinent details during the bolting activity, including destination location, bolt type, and bolt size.

Delay and Downtime Tracking:

- **Log Delays:** Understand how to log delays or downtime incidents during bolting operations.
- **Reason Codes:** Familiarize yourself with the predefined reason codes for delays, ensuring accurate and consistent reporting.

Switching Tasks:

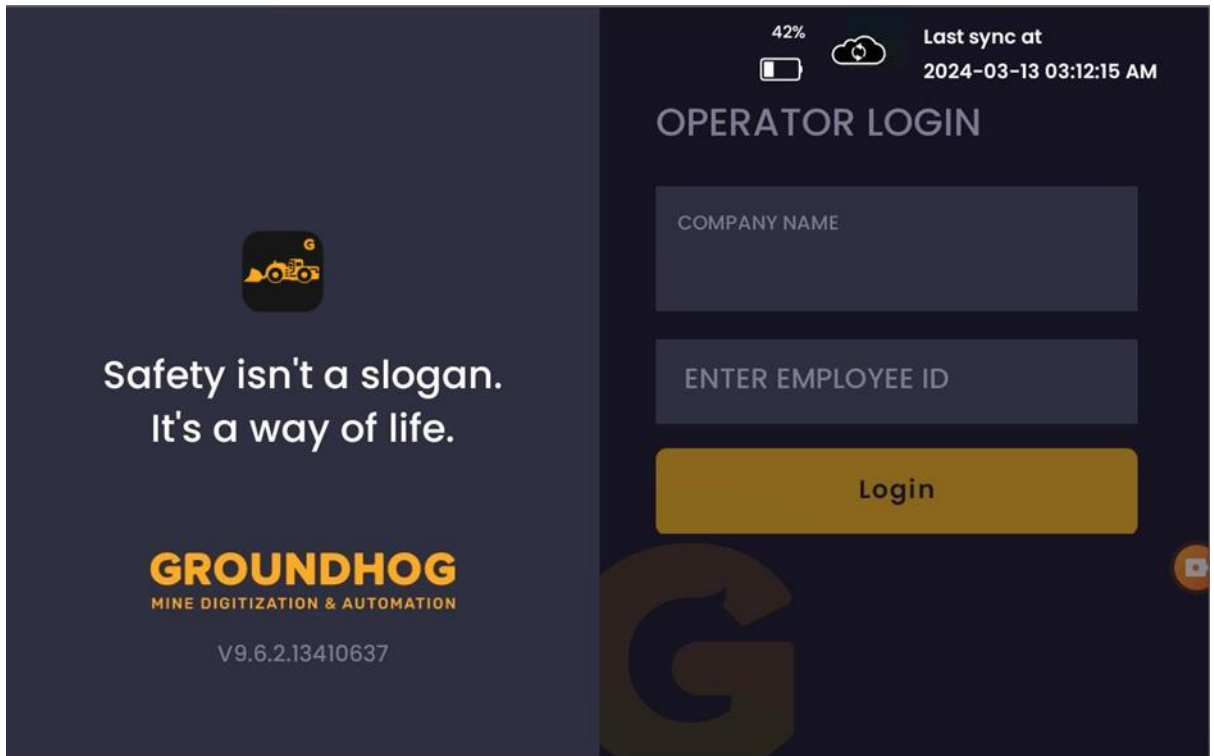
- **Task Transition:** This feature seamlessly transitions between different bolting tasks.

By following this user guide, operators can navigate the FMS Operator App seamlessly, ensuring a smooth and efficient bolting workflow while leveraging the full capabilities of state-of-the-art technology for enhanced productivity and data accuracy.

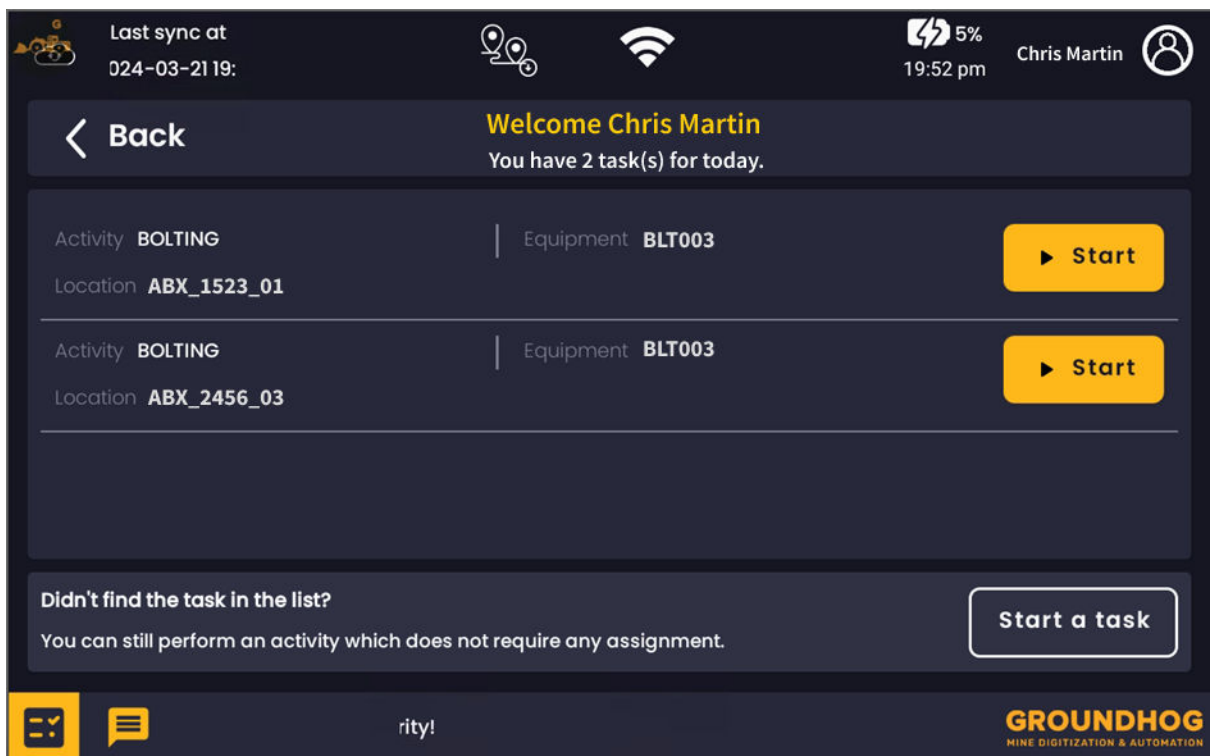
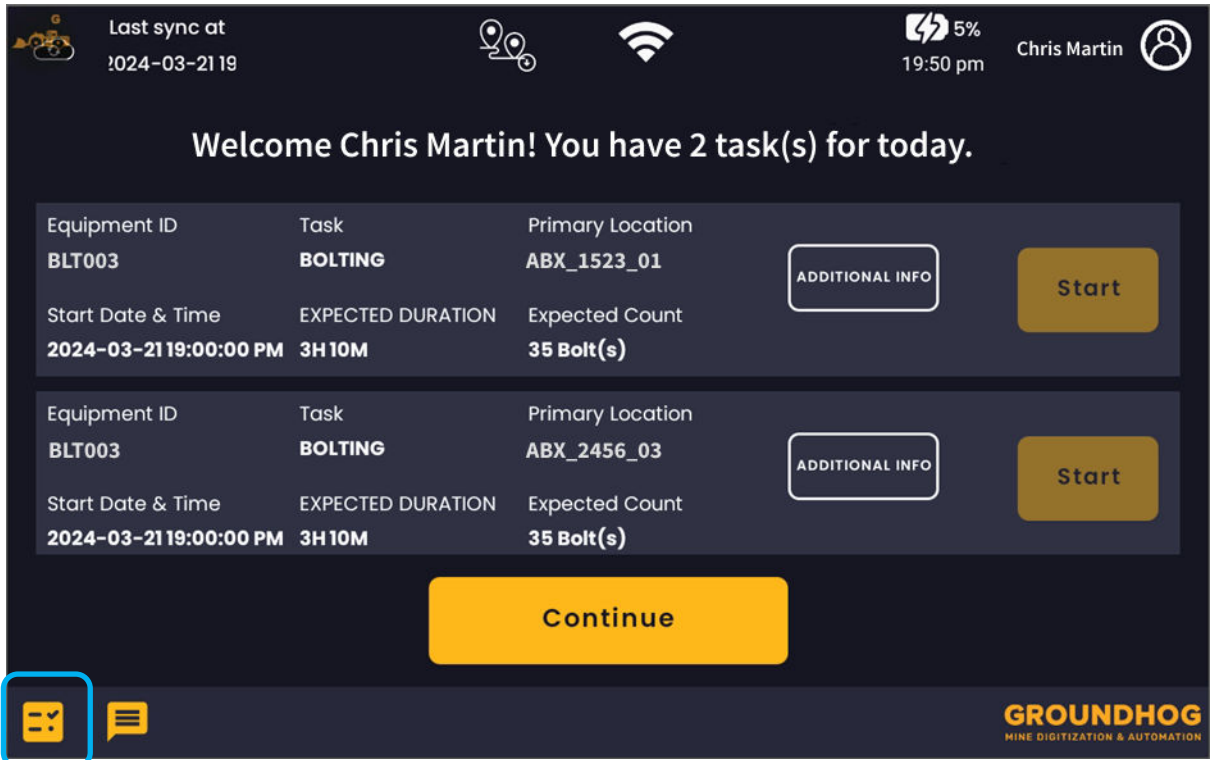
How to get started

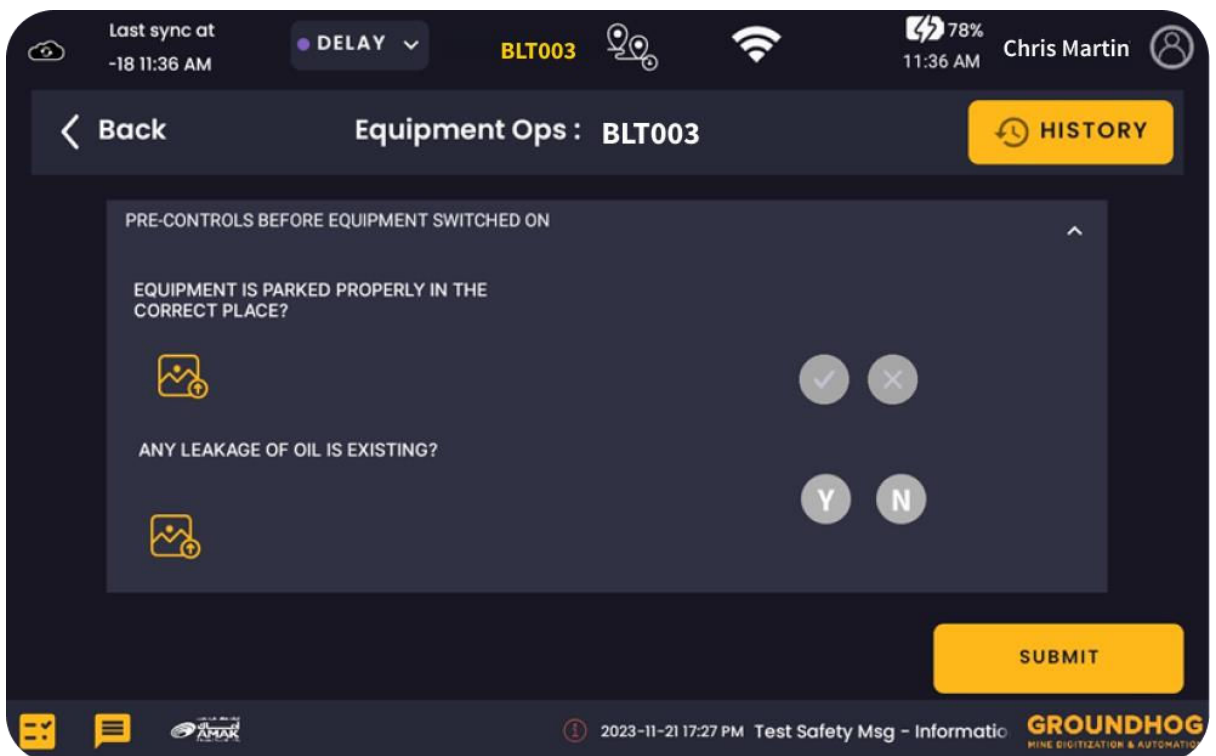
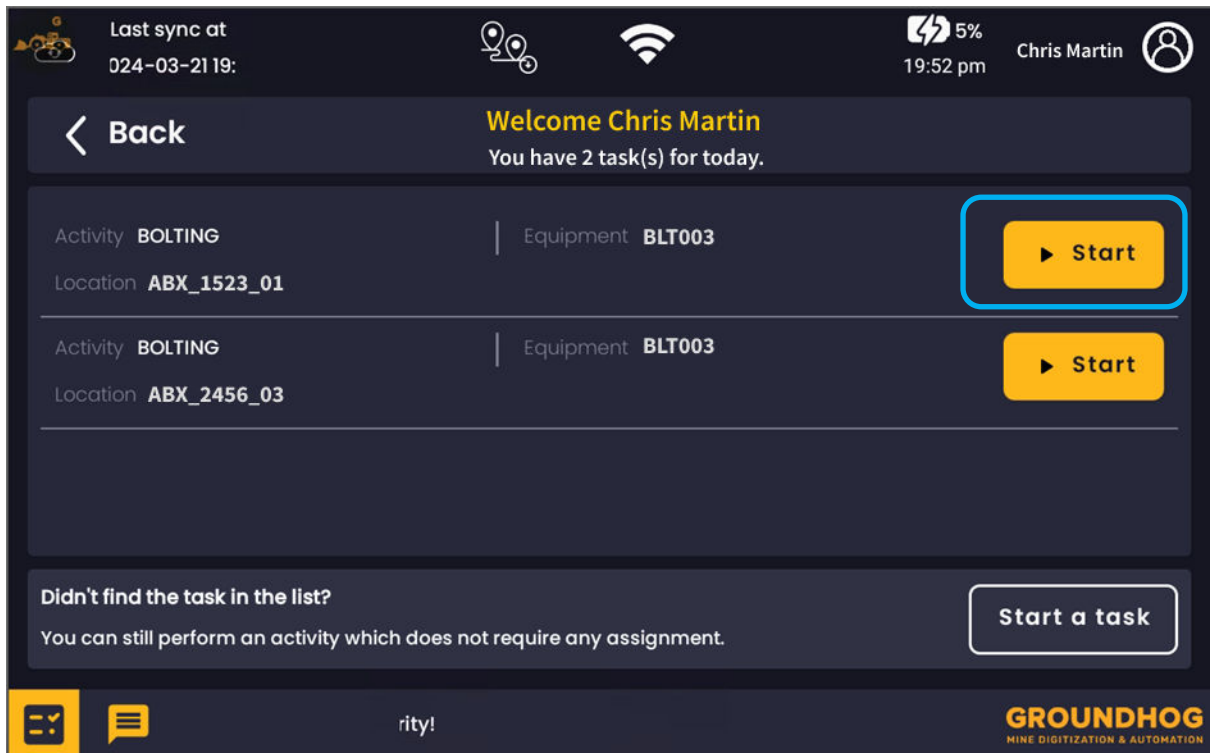
Task Acceptance/Creation

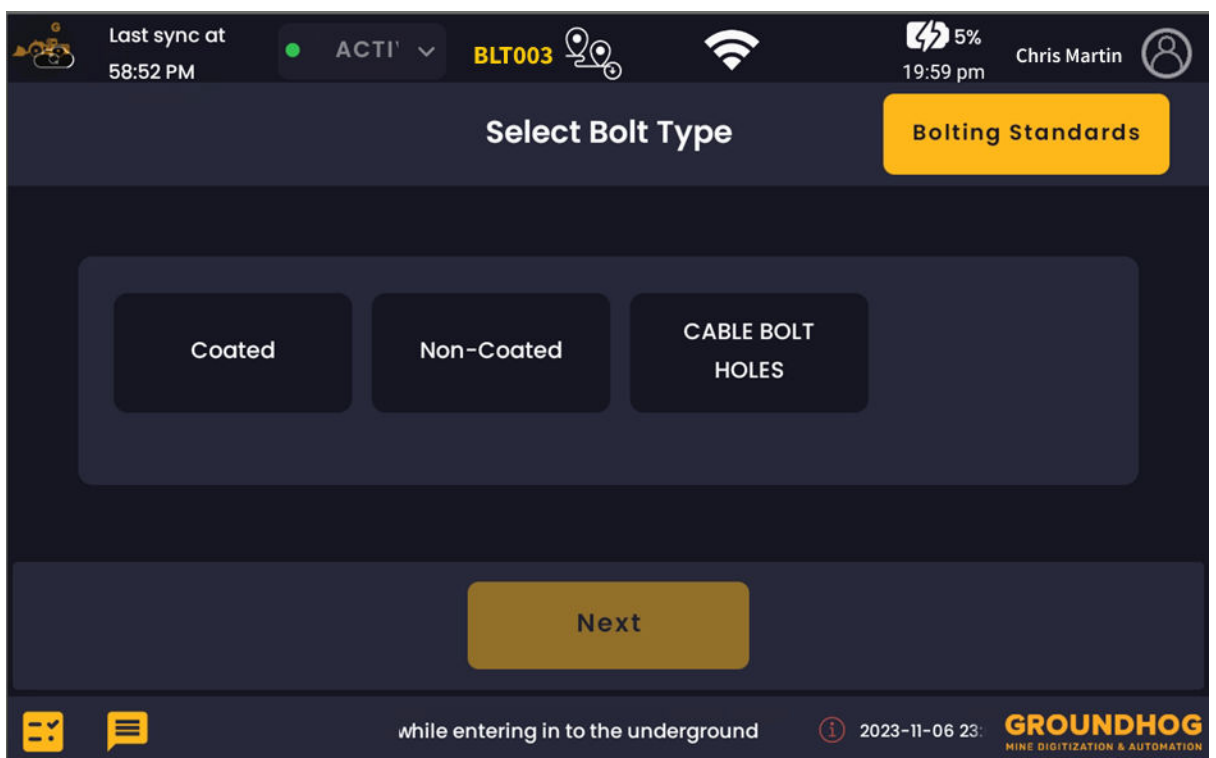
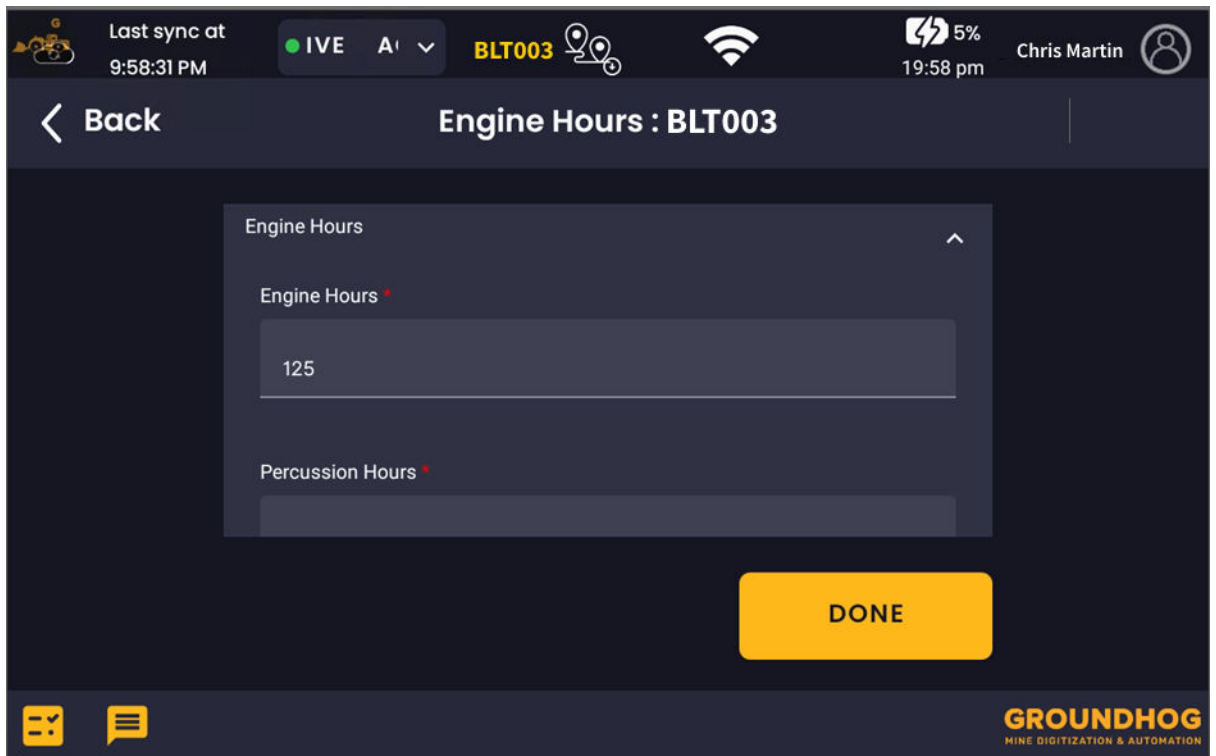
1. Login to the FMS UG Operator App with your ID.

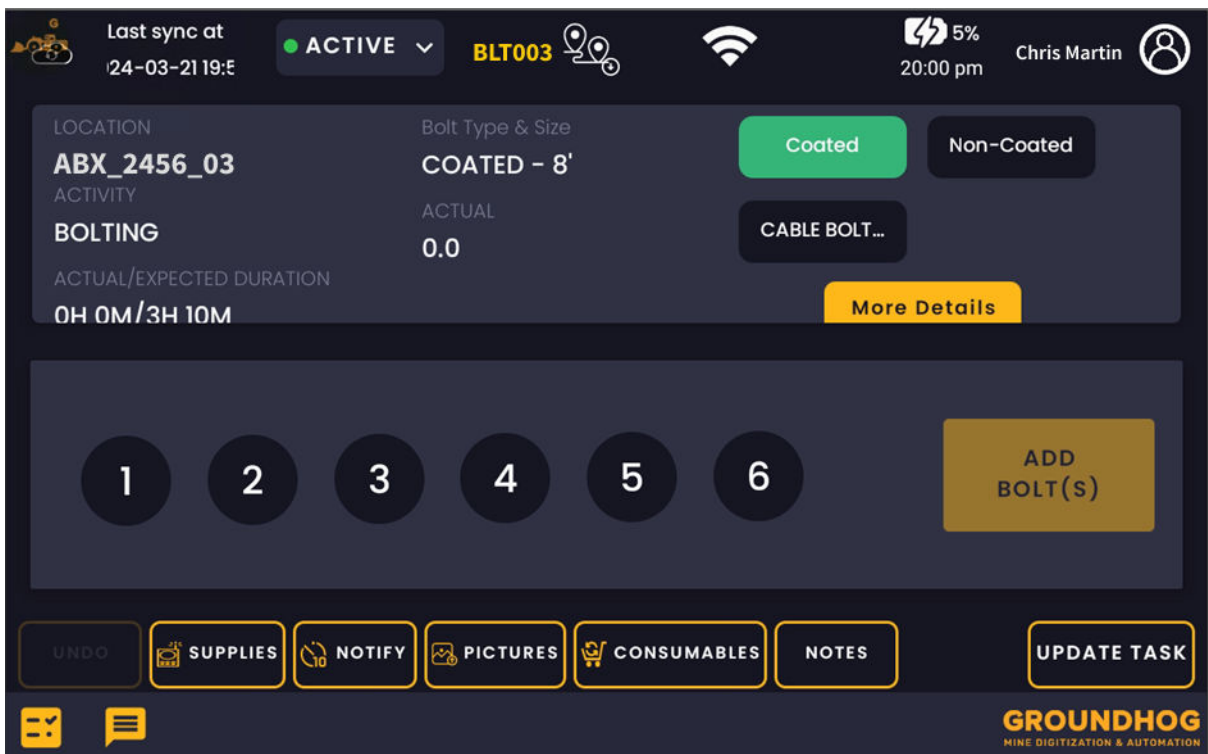
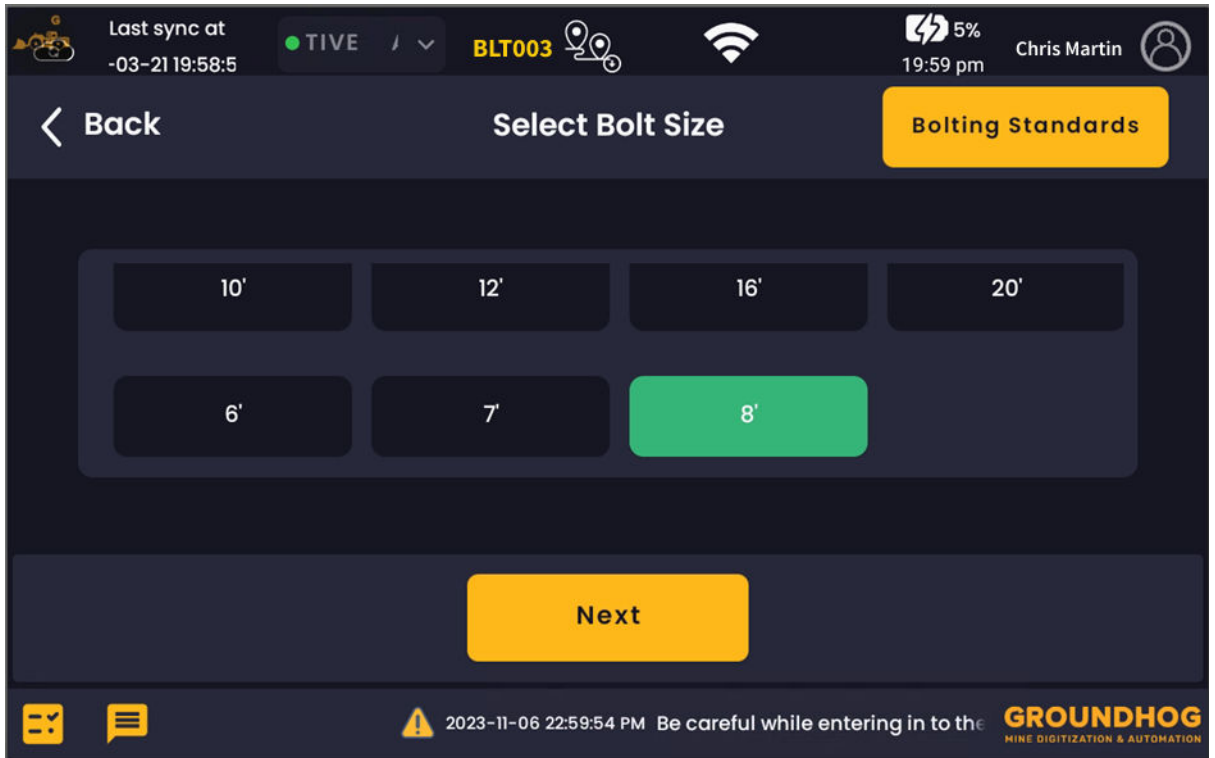


2. The task list screen is displayed. This screen presents all tasks assigned to the Operator.
 - a. Click on the task list button at the screen's bottom left corner. Another view of tasks will appear. Click "Start" on this screen.
 - b. Add engine hours.
 - c. Select Bolt type.
 - d. Select bolt size.
 - e. The operator will be directed to the bolting activity screen.



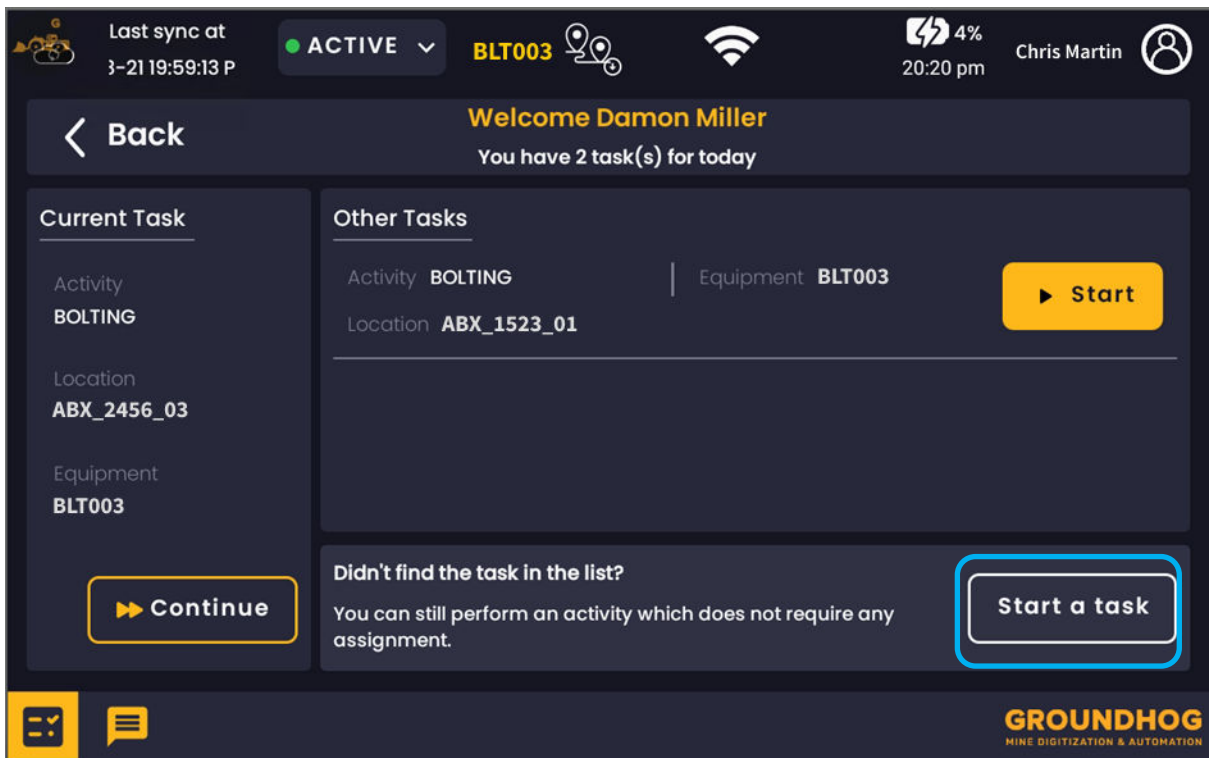


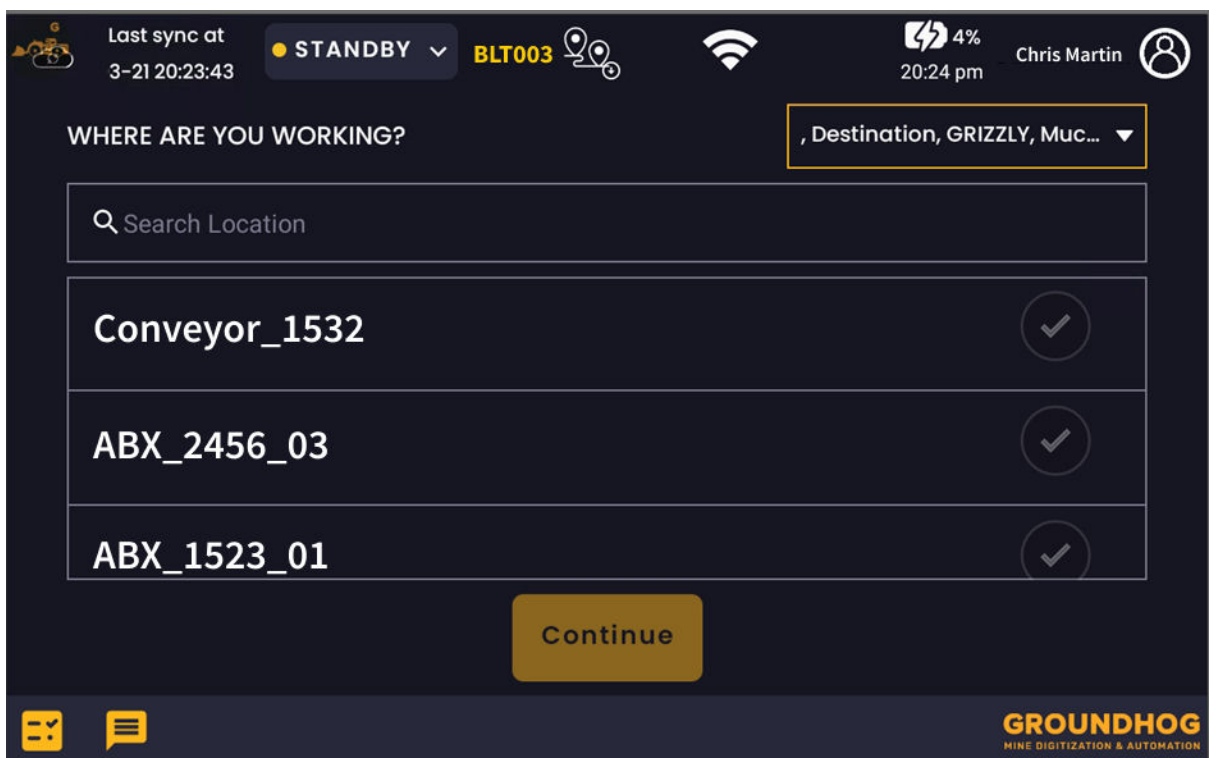
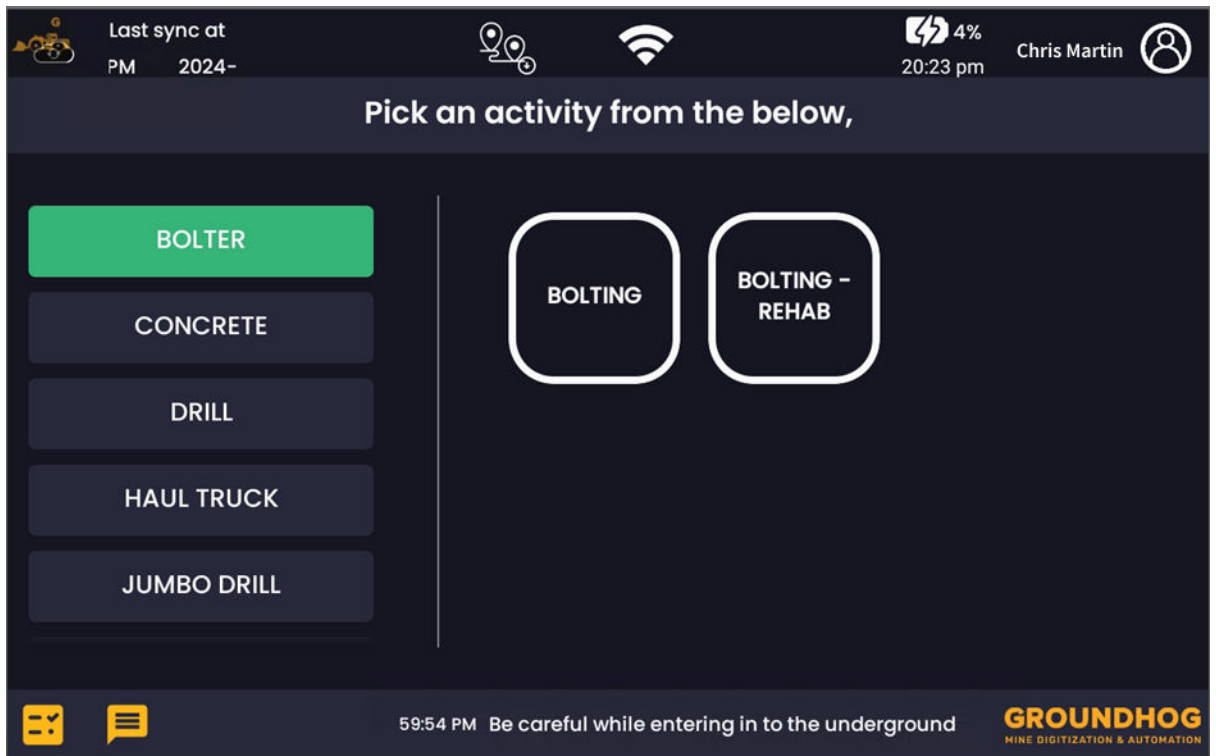


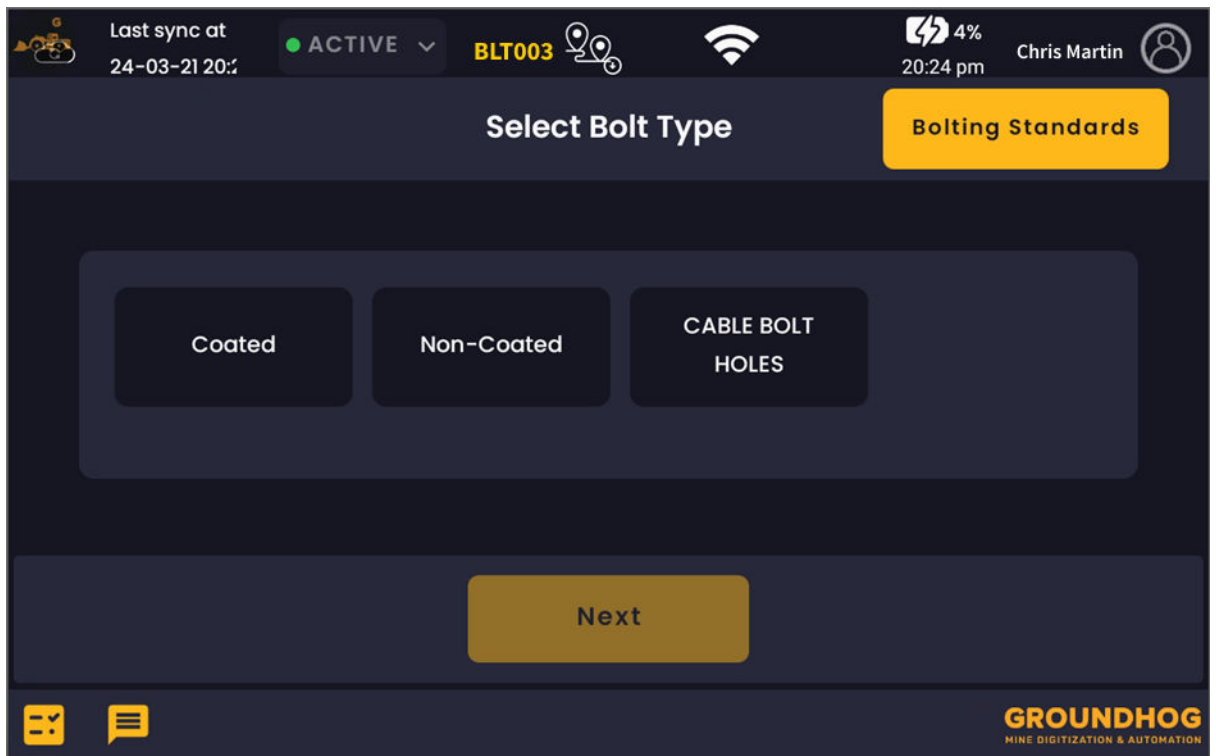
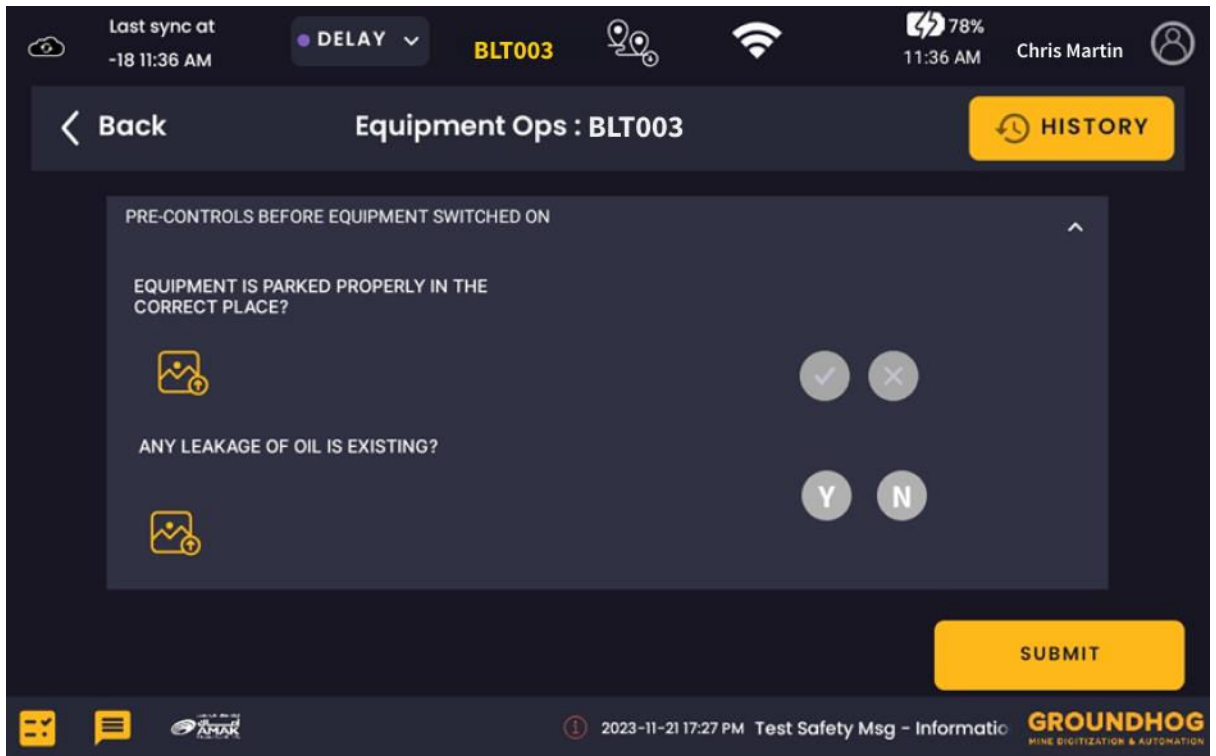


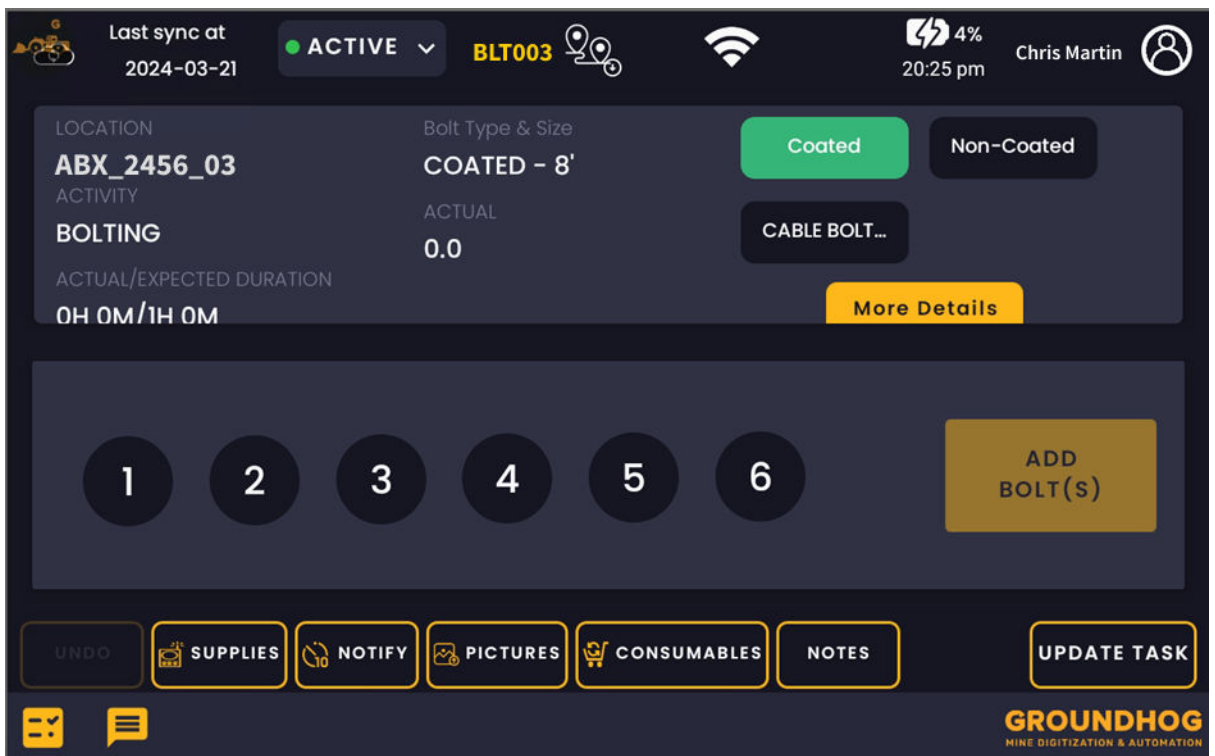
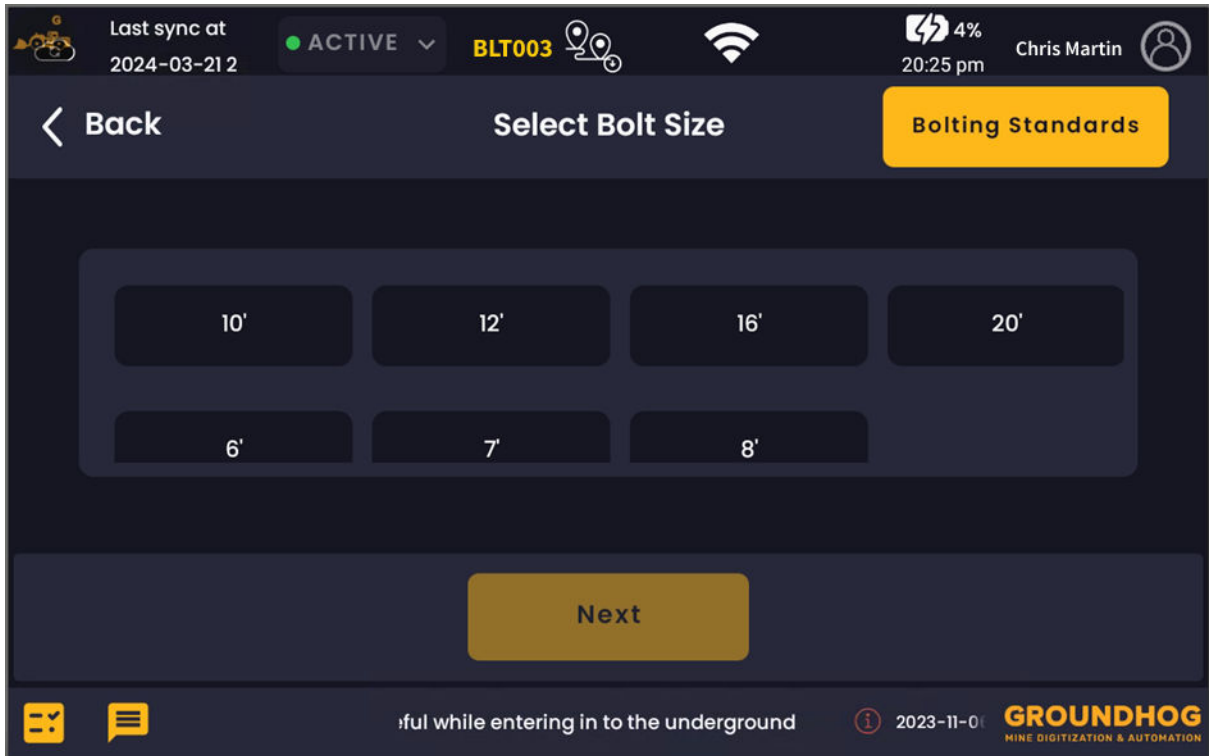
3. If no tasks are assigned or the Operator wants to do a task that is not listed, the Operator can initiate a task independently by clicking the "Start a Task" button. They will then proceed to:
 - a. Pick an activity.
 - b. Select the equipment type and activity type.
 - c. Pre-inspection
 - d. Input engine hours if applicable.
 - e. Choose the location where they will be working.
 - f. Select bolt type.
 - g. Select bolt size.

Following these steps, the Operator will be directed to the bolting activity screen to begin their assigned task.







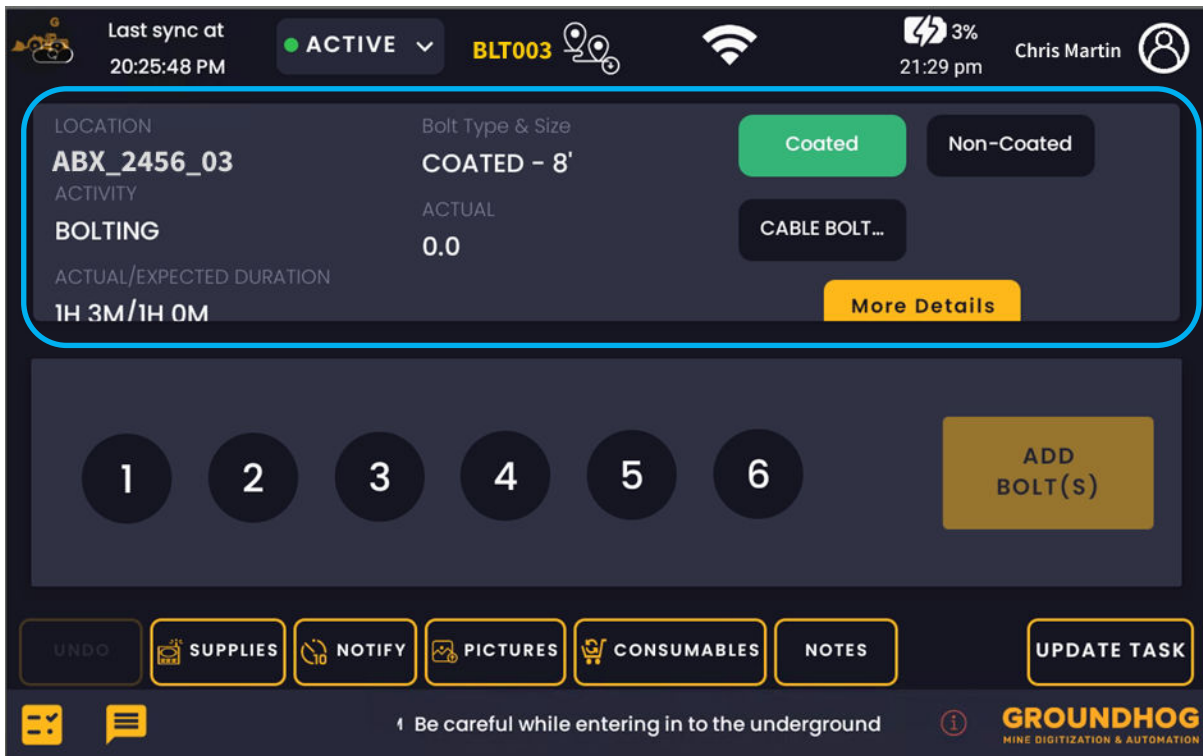


Recording Information

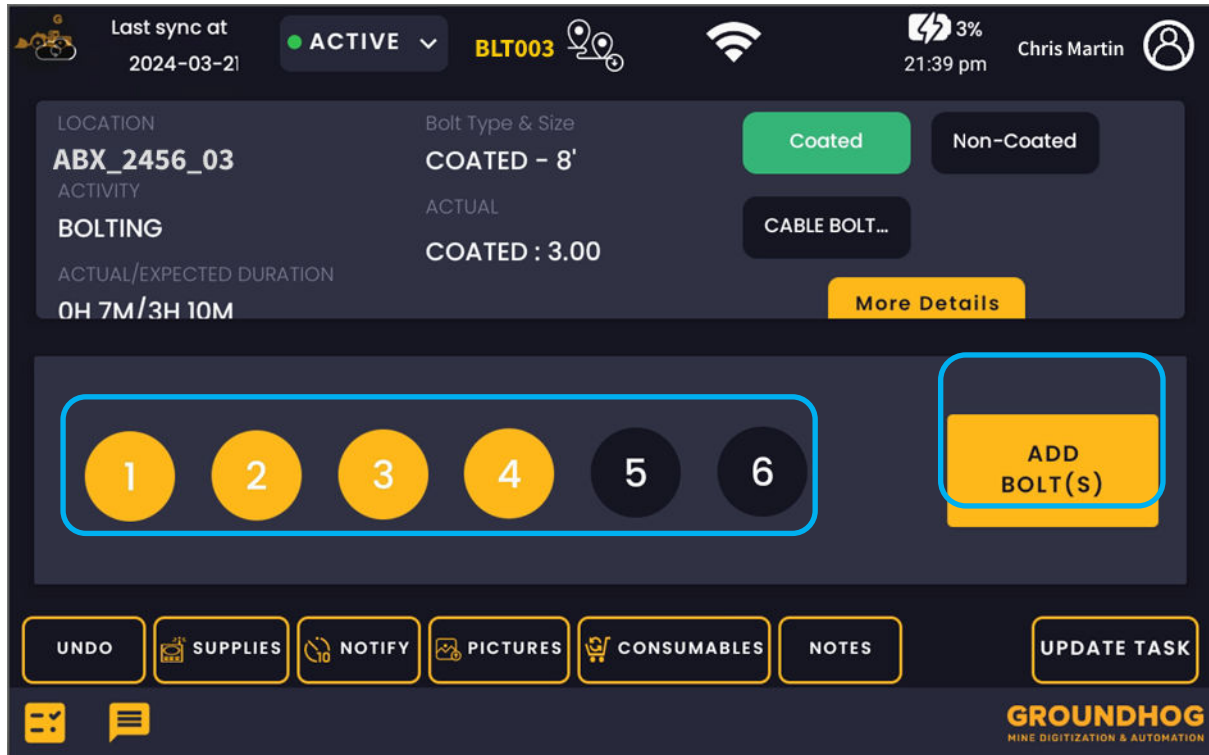
The Operator will be directed to the bolting activity screen to begin their assigned task.

How to record bolting details

In the highlighted box, you can see the work location, actual bolt counts, type of bolt (which can be changed to other types and the ability to adjust the bolt size), along with the actual and expected duration.

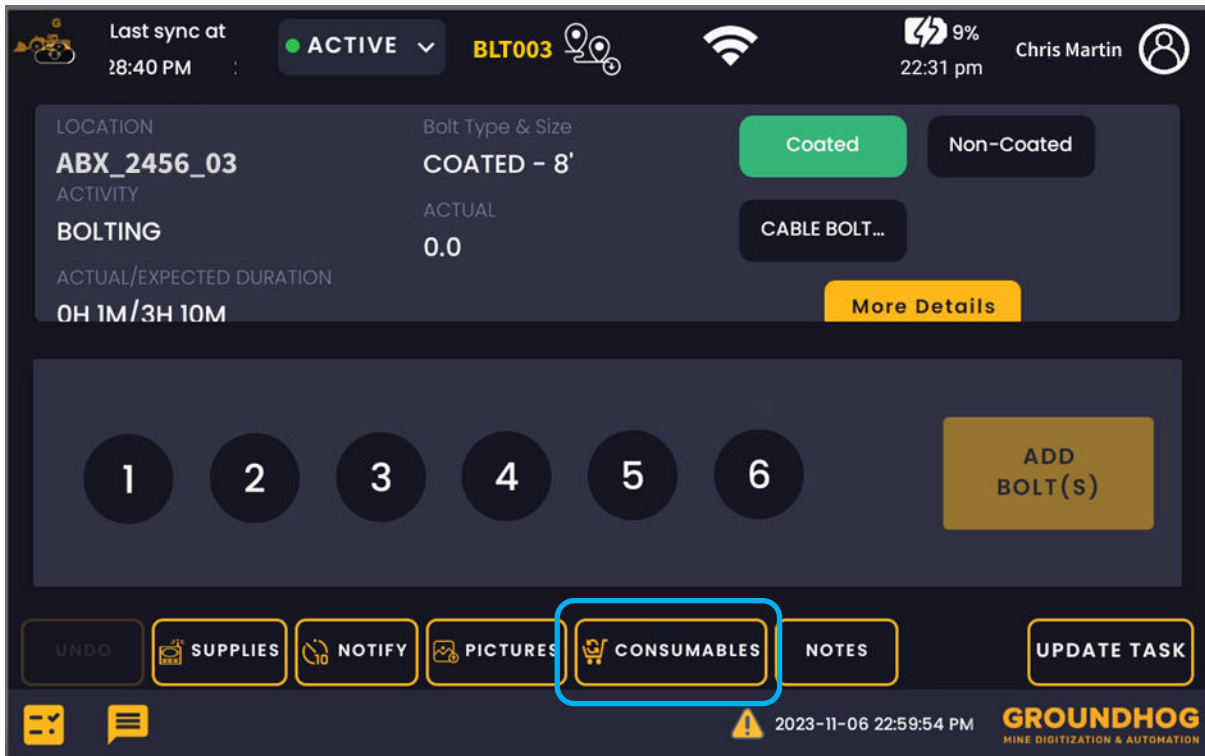


Operators can add the number of bolts by selecting the desired number of bolts and clicking on "Add Bolts" button.

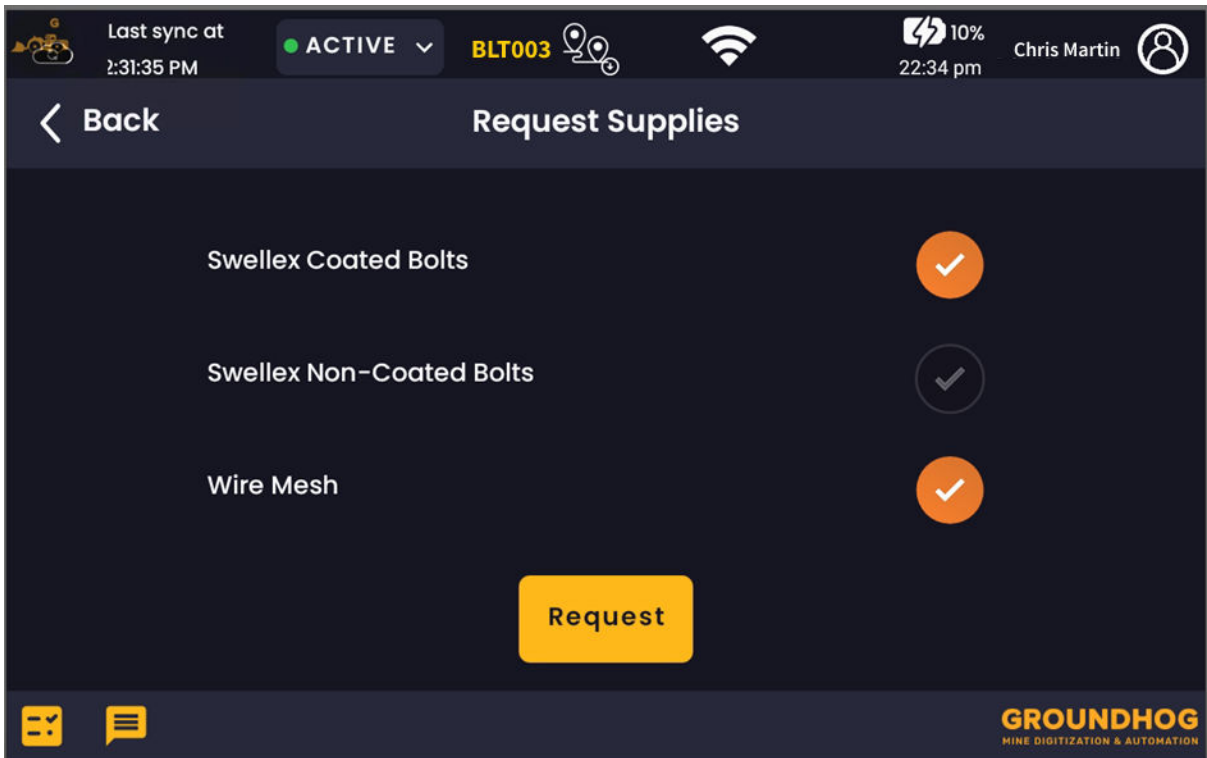
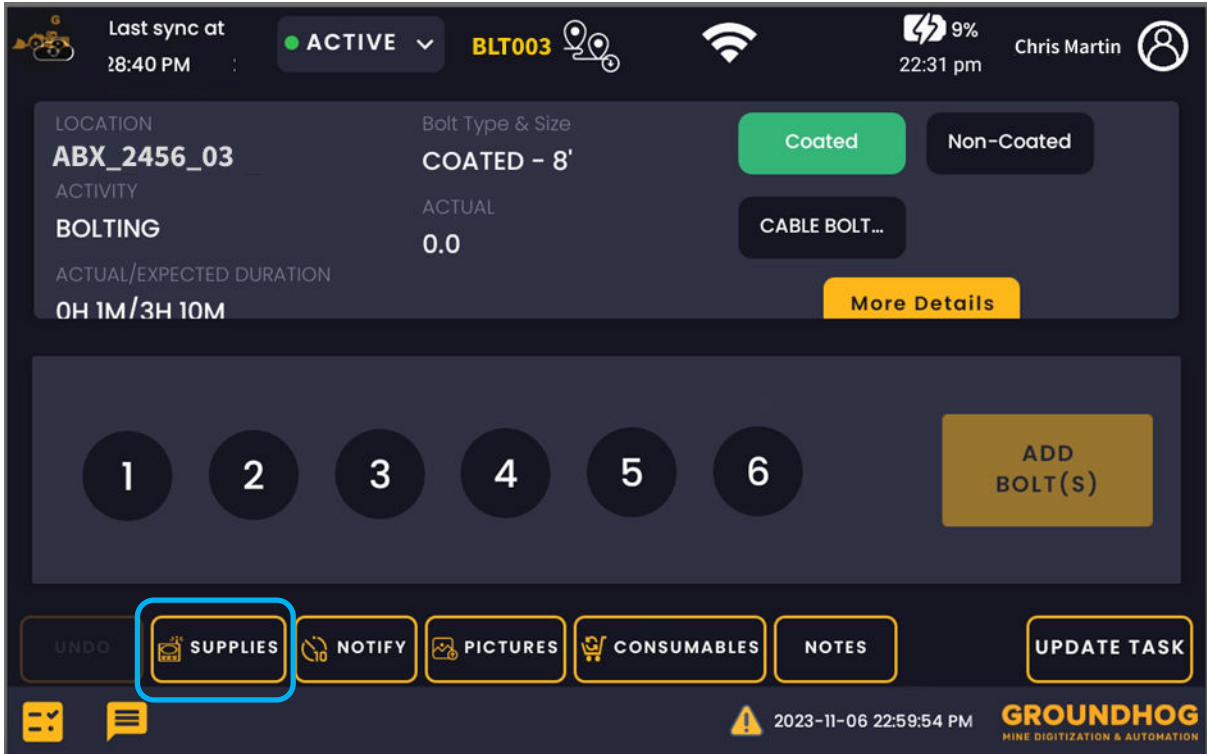


How to record consumables and request supplies

Click on "Consumables." On the next screen, you will find an option to add a consumable. Add the consumable, then click on "Save."

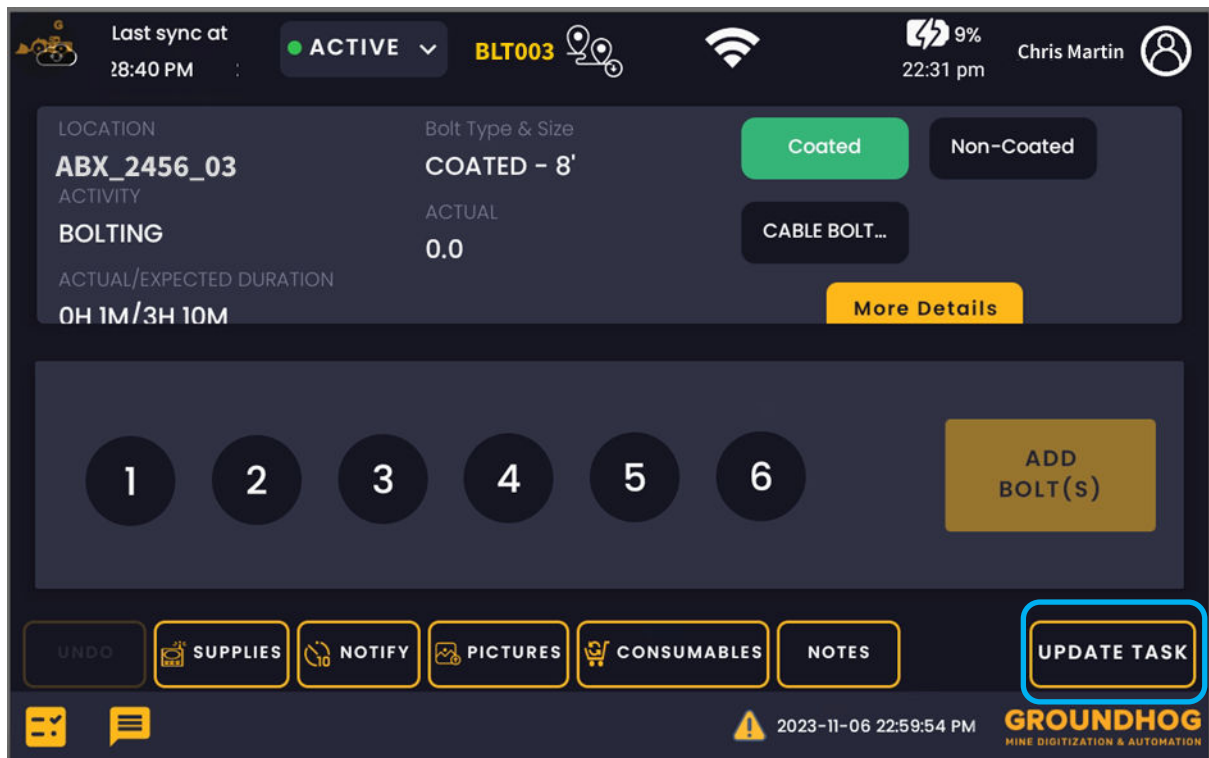


Click on the "Supplies" button located at the bottom left of the screen, select the required supplies, and click on the "Request" button. A notification will be sent to the Ops center indicating that you have requested supplies.



How to update task details

Click on "Update task" -> Update Consumables -> Select status of activity -> Select status of heading



Last sync at 3 22:48:11 PM ACTIVE BLT003 12% 22:52 pm Chris Martin

[Back](#) Update Consumables

Cable Bolt	0
Fast Pumpable Resin	0
Fast Resin Cartridge	0

[Continue](#)

2023-11-06 22:59:54 PM Be c **GROUNDHOG**
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Last sync at 3-23 22:50:27 ACTIVE BLT003 12% 22:52 pm Chris Martin

[Back](#) Select the status of activity

ACTUAL/EXPECTED COUNT	ACTUAL/EXPECTED DURATION
11/35.0 Bolt(s)	0H 22M/3H 10M

[Completed](#)

[Not Completed](#)

[Next](#)

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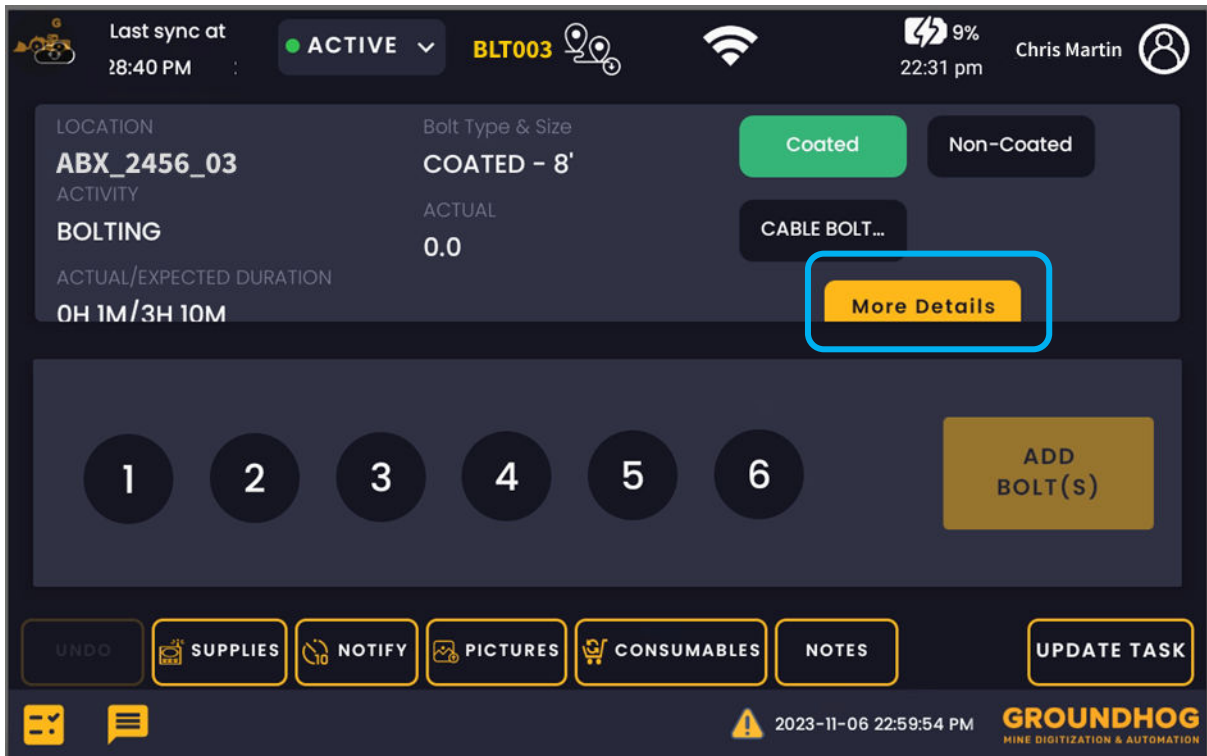
How to notify supervisors, take pictures, and read notes

The operator can revert the bucket count, inform the Admin, capture images as proof of work or issues, access supervisor notes, and record sample bag details.

The screenshot shows the Groundhog mobile application interface. At the top, there is a status bar with a location pin icon, 'Last sync at 10:40 PM', a green dot and 'ACTIVE' dropdown, 'BLT003' with a location pin icon, a Wi-Fi signal icon, a battery icon at 9%, and the user name 'Chris Martin' with a profile icon. Below this is a task details section with a dark background. It includes 'LOCATION ABX_2456_03', 'ACTIVITY BOLTING', and 'ACTUAL/DURATION 0H 1M/3H 10M'. To the right, it shows 'Bolt Type & Size COATED - 8\'', 'ACTUAL 0.0', and two buttons: 'Coated' (green) and 'Non-Coated' (dark grey). A 'CABLE BOLT...' button is also present. A yellow 'More Details' button is at the bottom right of this section. Below the task details is a row of six numbered circular buttons (1-6) and a yellow 'ADD BOLT(S)' button. At the bottom, there is a row of action buttons: 'UNDO', 'SUPPLIES' (with a shopping cart icon), 'NOTIFY' (with a bell icon), 'PICTURES' (with a camera icon), 'CONSUMABLES' (with a shopping cart icon), 'NOTES' (with a notepad icon), and 'UPDATE TASK'. A bottom navigation bar contains a menu icon, a chat icon, a warning icon, the date and time '2023-11-06 22:59:54 PM', and the 'GROUNDHOG MINE DIGITIZATION & AUTOMATION' logo. A blue rectangular box highlights the 'SUPPLIES', 'NOTIFY', 'PICTURES', 'CONSUMABLES', and 'NOTES' buttons.

How to view Task History and Heading History and record task completion

To access more details, including Task History, Heading History, or Activity Forms linked to the task, click "More Details." This screen also provides information about Supporting Operators involved in the task and any notes from the Supervisor. During task creation, notes from Supporting Operators, Supporting Activities, or the Supervisor can be added via the task OpsCenter.



Last sync at 37:04 PM
● ACTIVE
BLT003
11%
22:38 pm
Chris Martin

< Back
More Details

Task History >

Heading History >

Activity Forms >

Bolting Standards >

SUPPORTING OPERATORS

N/A

SUPPORTING ACTIVITY NOTES

No Supporting activity notes available

SUPERVISOR NOTES

⚙️
💬
⚠️ 2023-11-06 22:59:54 PM Be
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Last sync at :04 PM 20
● ACTIVE
BLT003
11%
22:38 pm
Chris Martin

< Back
Task History
Total: 11.0 Bolt(s)
Collapse All

Equipment Status Details ^

ACTIVE	From: 2024-03-23 22:38:46 PM	To: -	
STANDBY	From: 2024-03-23 22:37:44 PM	To: 2024-03-23 22:37:46 PM	Duration: 0h 0m 1s
DOWN	From: 2024-03-23 22:37:00 PM	To: 2024-03-23 22:37:44 PM	Duration: 0h 0m 44s
ACTIVE	From: 2024-03-23 22:29:24 PM	To: 2024-03-23 22:37:00 PM	Duration: 0h 7m 36s

Task Status Details ^

Activity	Time
Added 5 Bolt(s) [COATED - 8']	2024-03-23 22:36:37 PM

⚙️
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while entering in to the underground
ⓘ 2023-11-06 23
GROUNDHOG
MINE DIGITIZATION & AUTOMATION

Last sync at 2024-0:
ACTIVE
BLT003
11% 22:39 pm
Chris Martin

Back
Task History
Total: 11.0 Bolt(s)
Collapse All

Equipment Status Details

Task Status Details

Activity	Time
Added 5 Bolt(s) [COATED - 8']	2024-03-23 22:36:37 PM
Added 2 Bolt(s) [COATED - 8']	2024-03-23 22:36:37 PM
Added 4 Bolt(s) [COATED - 8']	2024-03-23 22:32:08 PM
Started BOLTING	2024-03-23 22:30:05 PM

GROUNDHOG MINE DIGITIZATION & AUTOMATION

Last sync at 37:04 PM
ACTIVE
BLT003
11% 22:38 pm
Chris Martin

Back
More Details

Task History >

Heading History >

Activity Forms >

Bolting Standards >

SUPPORTING OPERATORS

N/A

SUPPORTING ACTIVITY NOTES

No Supporting activity notes available

SUPERVISOR NOTES

2023-11-06 22:59:54 PM Be
GROUNDHOG MINE DIGITIZATION & AUTOMATION

Last sync at PM 2024- **ACTIVE** **BLT003** 11% 22:39 pm Chris Martin

< Back **Heading History**

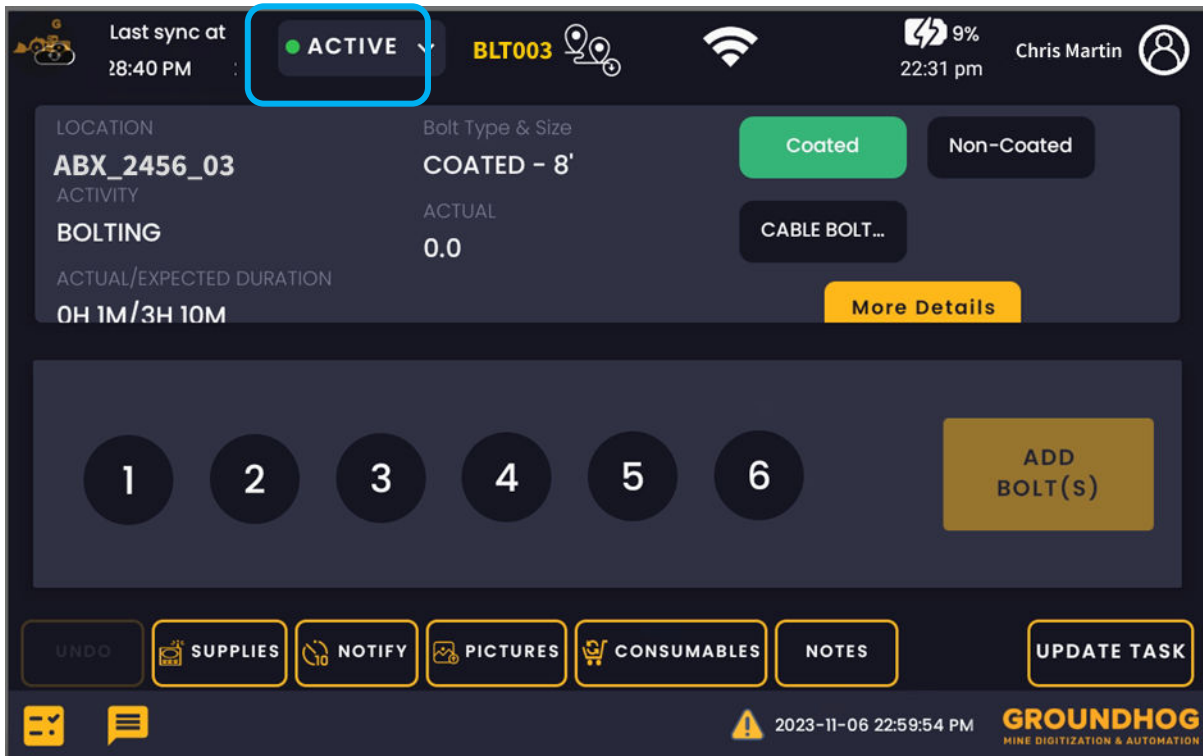
DATE AND TIME	ACTIVITY	METRICS
2024-03-21 19:56:50 PM	BOLTING	-
2024-03-21 19:39:34 PM	BOLTING	-

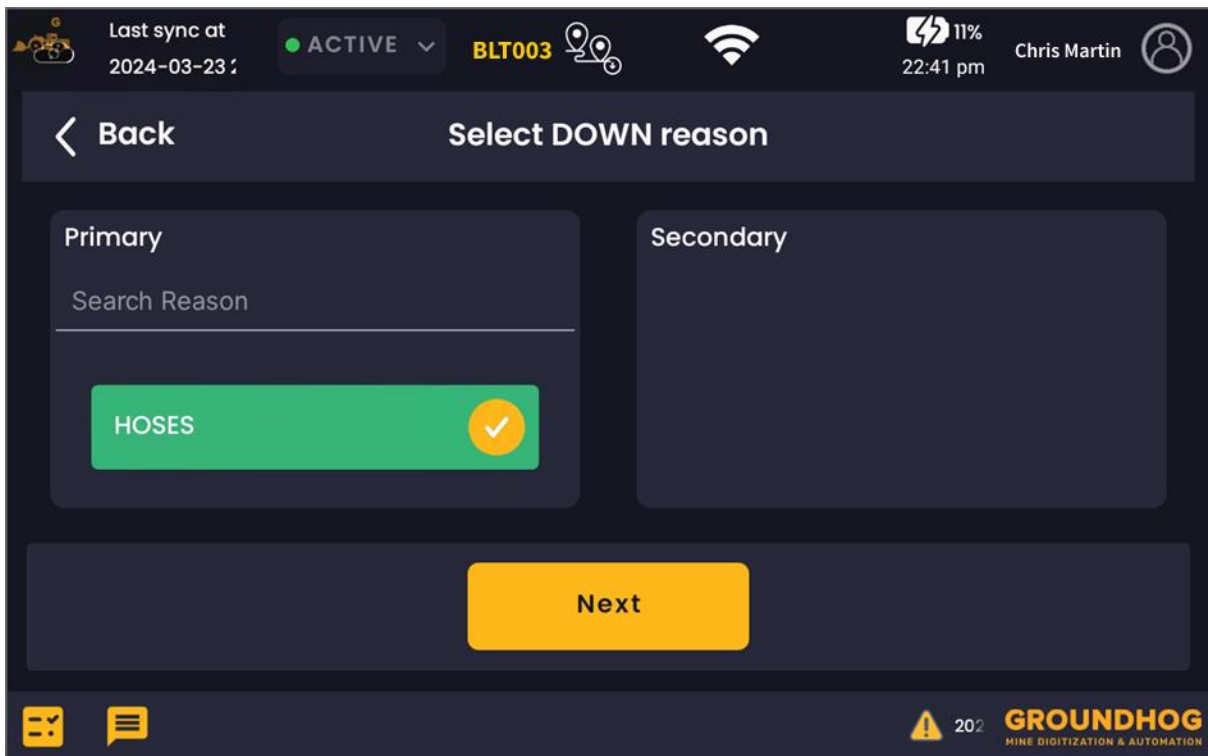
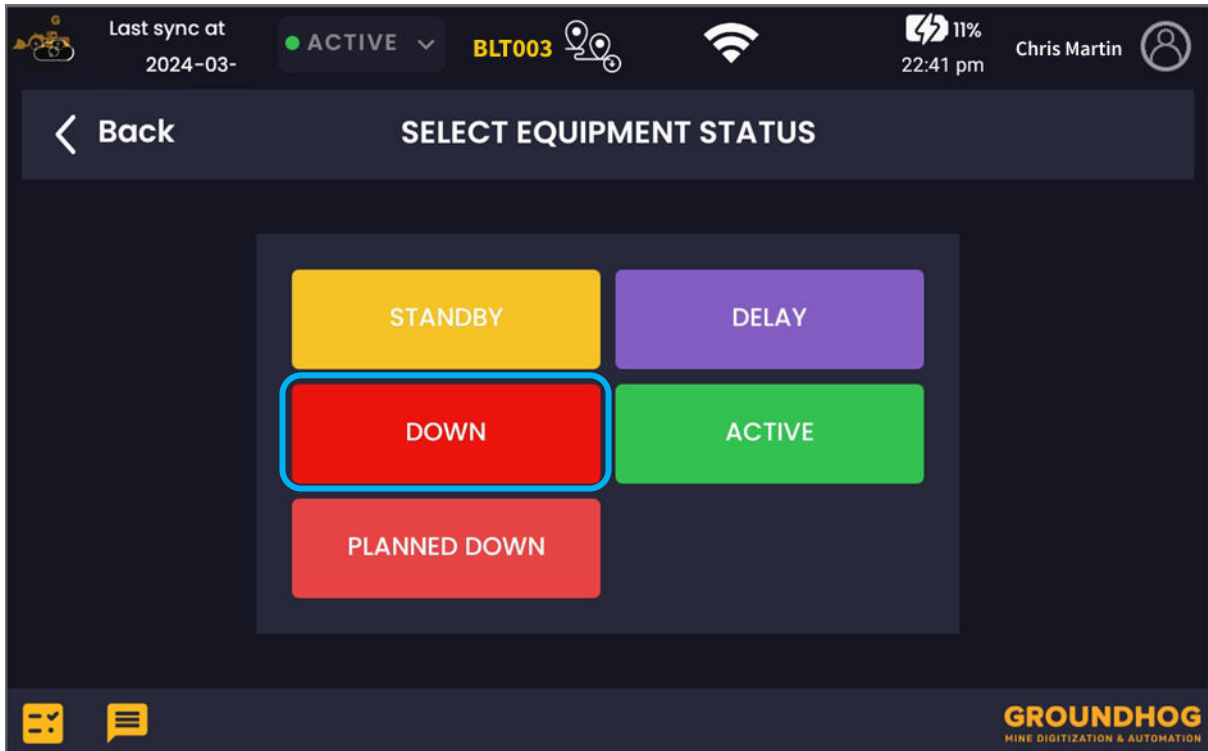
2023-11-06 **GROUNDHOG**
MINE DIGITIZATION & AUTOMATION

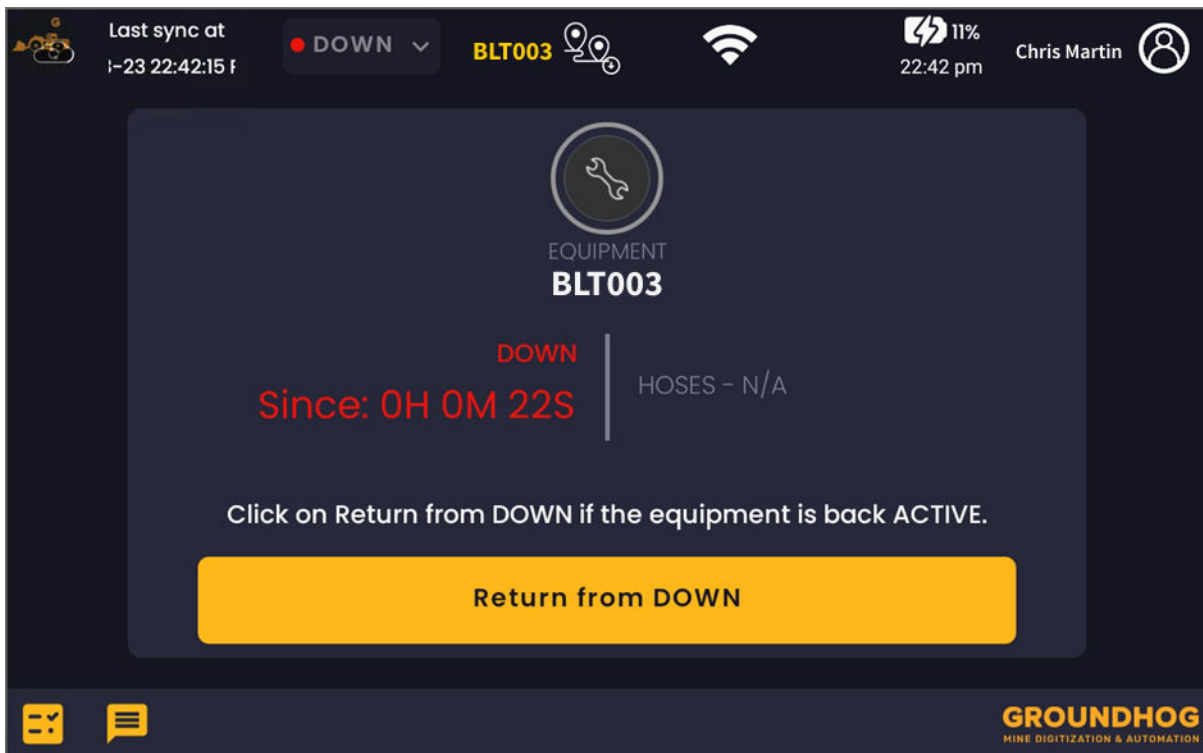
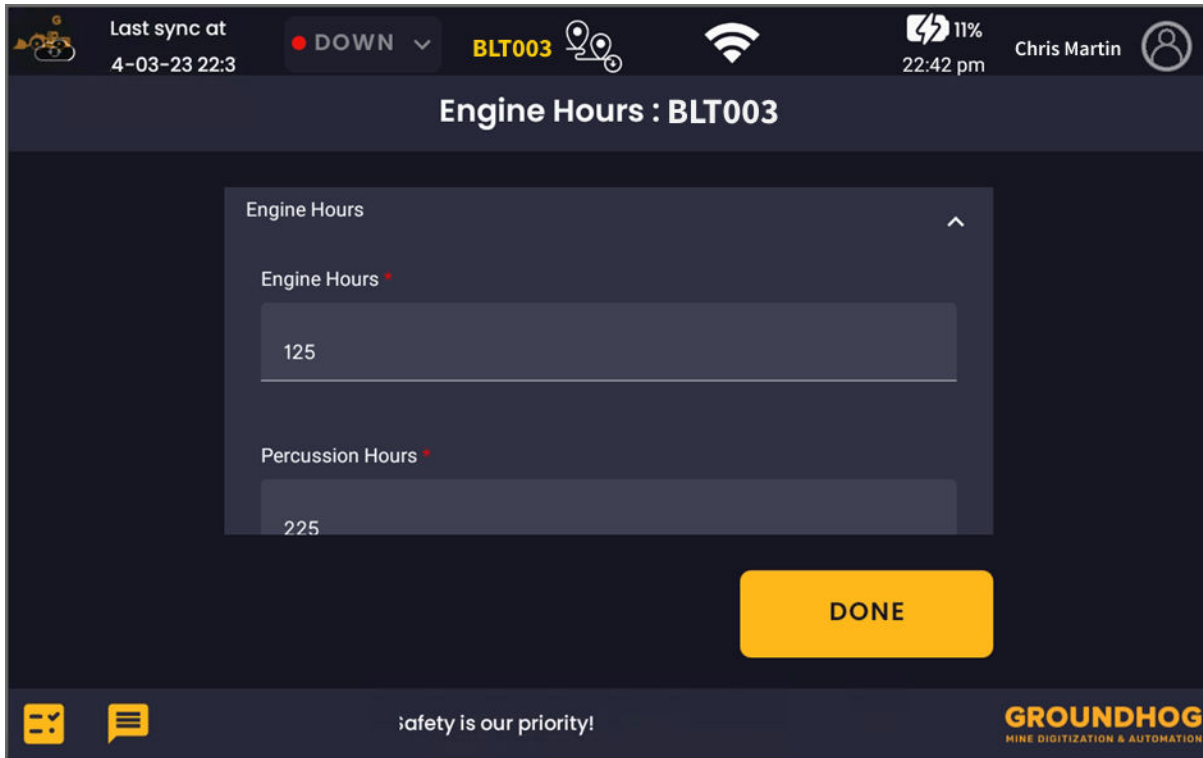
Delays and Downs Tracking

How to log and view downs and delays

If the equipment is not operational, the operator can select the "Active" status displayed on the header and change it to "DOWN" to accurately reflect the equipment's status.



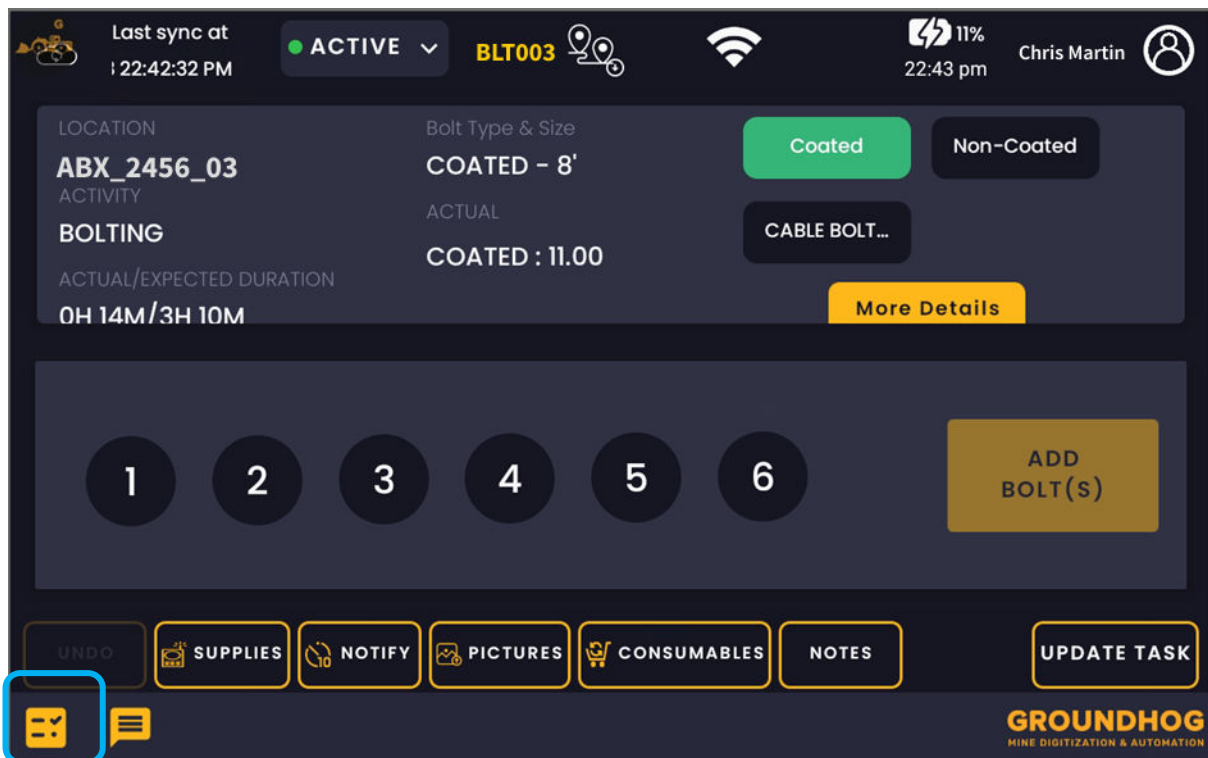




Switching tasks

How to change/switch tasks

From the Task List screen, the operator can initiate a new task while still working on the current one. The current task is displayed on the left side of the screen. Clicking "Continue" allows the operator to proceed with the current task, while clicking "Start" on the right side of the screen enables them to switch to that task.



The screenshot displays the Groundhog mobile application interface. At the top, the status bar shows 'Last sync at 2024-03-1', a green 'ACTIVE' indicator, the equipment ID 'BLT003', a Wi-Fi signal icon, a battery level of 12% at 22:44 pm, and the user name 'Chris Martin' with a profile icon. Below this is a navigation bar with a 'Back' arrow and a welcome message: 'Welcome Chris Martin' and 'You have 2 task(s) for today.' The main content area is divided into two columns. The left column, titled 'Current Task', lists 'Activity BOLTING', 'Location ABX_2456_03', and 'Equipment BLT003'. A yellow 'Continue' button with a right-pointing arrow is highlighted with a blue border. The right column, titled 'Other Tasks', shows 'Activity BOLTING', 'Equipment BLT003', and 'Location ABX_1523_01'. A yellow 'Start' button with a right-pointing arrow is also highlighted with a blue border. Below these columns is a section titled 'Didn't find the task in the list?' with the text 'You can still perform an activity which does not require any assignment.' and a 'Start a task' button. The bottom navigation bar contains a menu icon, a chat icon, the text 'erground', a timestamp '2023-11-06 23:00:35 PM', the slogan 'Safety is our priority', and the 'GROUNDHOG MINE DIGITIZATION & AUTOMATION' logo.

Communication Protocol

GroundHog has implemented a three-tiered communication protocol to establish a structured and efficient communication framework. Each level addresses specific aspects of support and management, ensuring that concerns are addressed promptly and effectively.

Level 1: Site Support: At the foundation of our communication protocol is Level 1 - Site Support. This level primarily deals with on-site issues and immediately assists field operators and personnel.

Level 2: GroundHog Support Team: Level 2 is the GroundHog Support Team, the intermediate layer between on-site operations and higher management. This level focuses on resolving complex technical issues and providing advanced support.

Level 3: GroundHog Management: The apex of our communication protocol is Level 3 - GroundHog Management. This level involves high-level decision-makers and managers who oversee the entire operational landscape.

Our customer-first approach includes an extremely responsive Customer Service team, intuitive programs to accelerate adoption in the field, and transparent data to increase productivity.

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