Turbine scan plan Instruction

Equipment: Faro Scanner + Insta360 Titan camera

Each scan: 5 min (Resolution: 1/32, Quality: 8x)

- Total Faro scanning duration: 17 scans * 5 = 85 min

  - Insta360 Titan camera duration: 15 – 20 min

Preparation to the site

Major steps:
1. Check if targets can be place on wall
2. Place the targets
3. Faro scanner data collection
4. 360 camera data collection
5. Remove targets

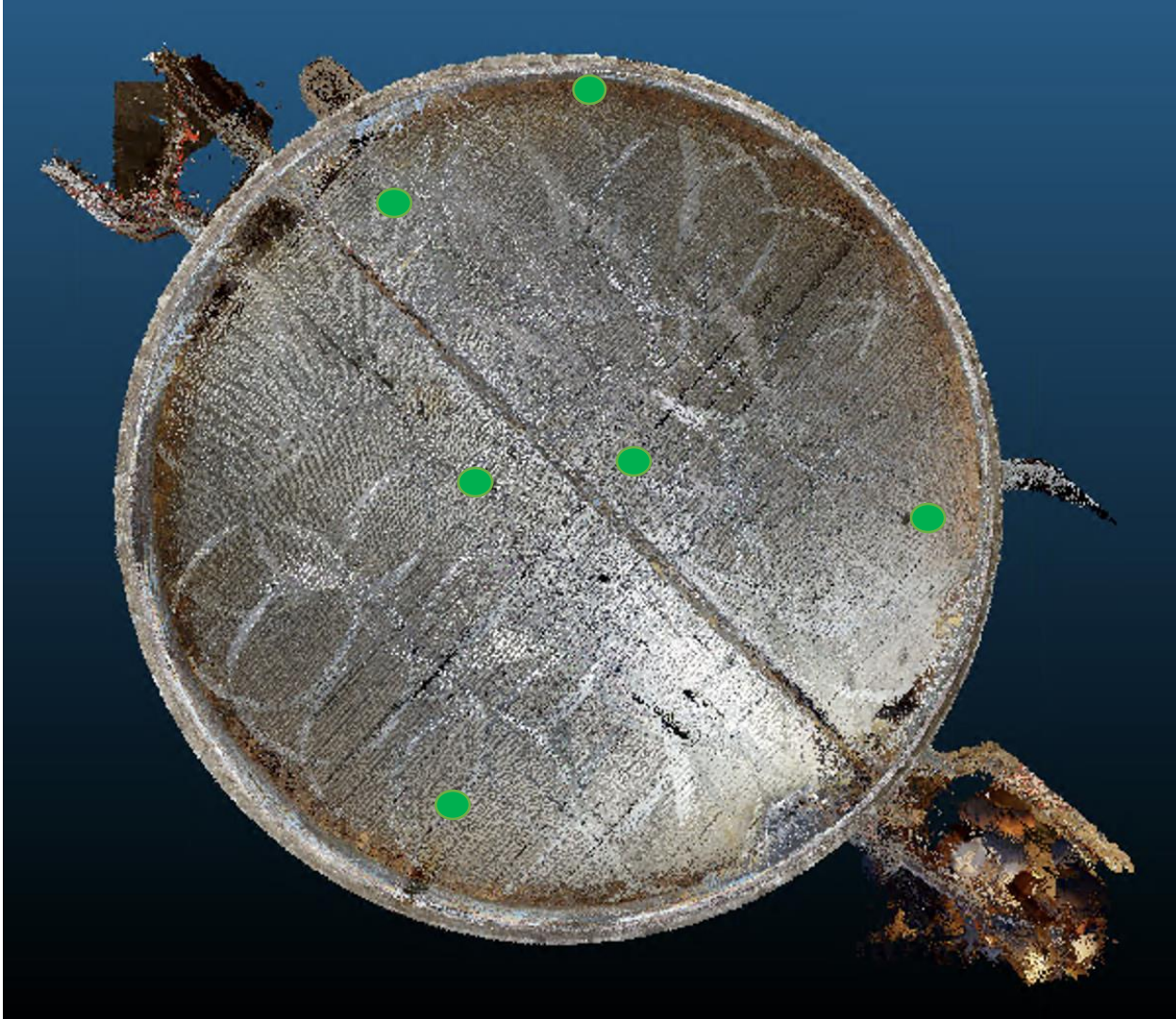# Check if targets can be place on wall
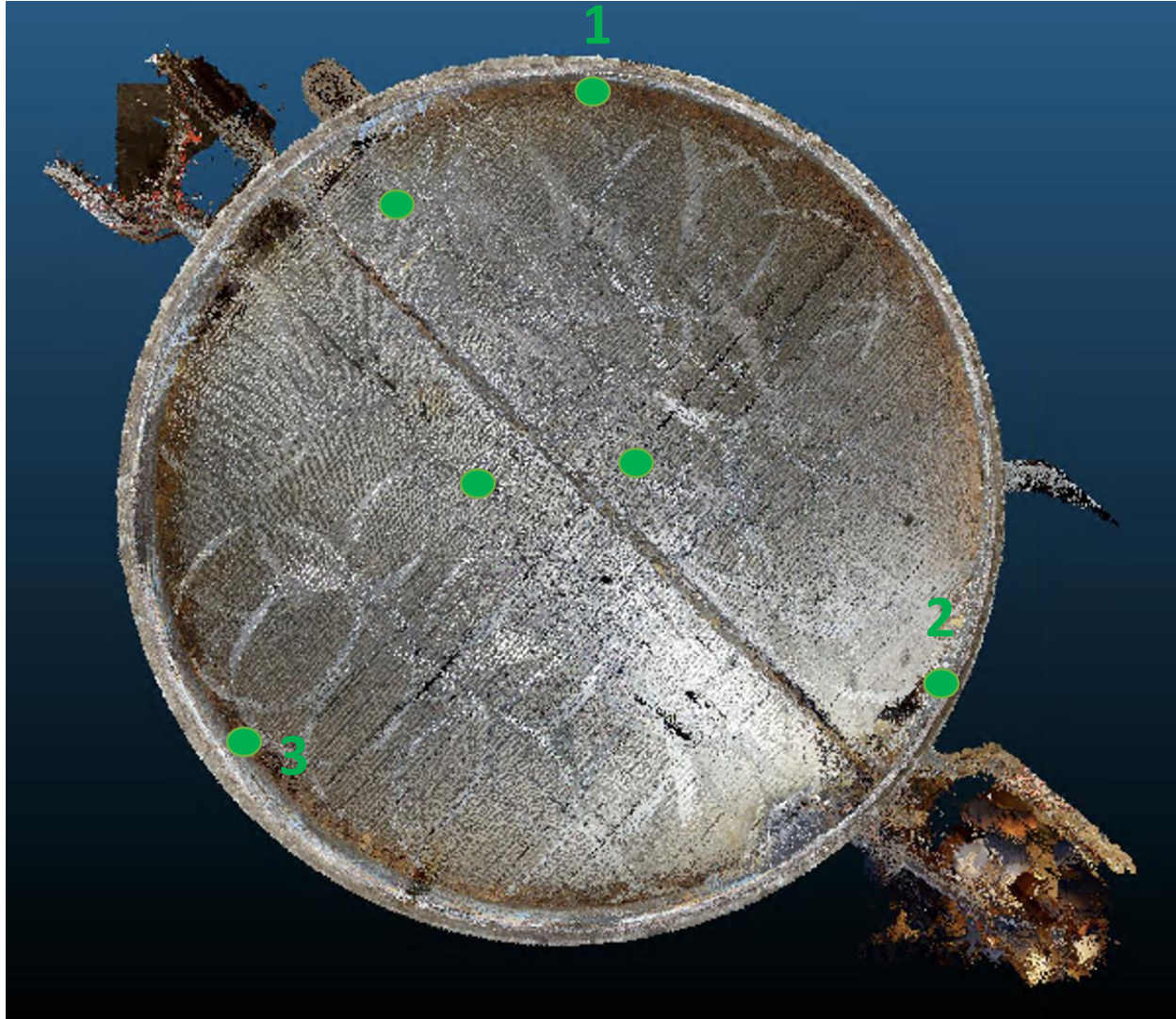

Top-down view

Bottom-up view
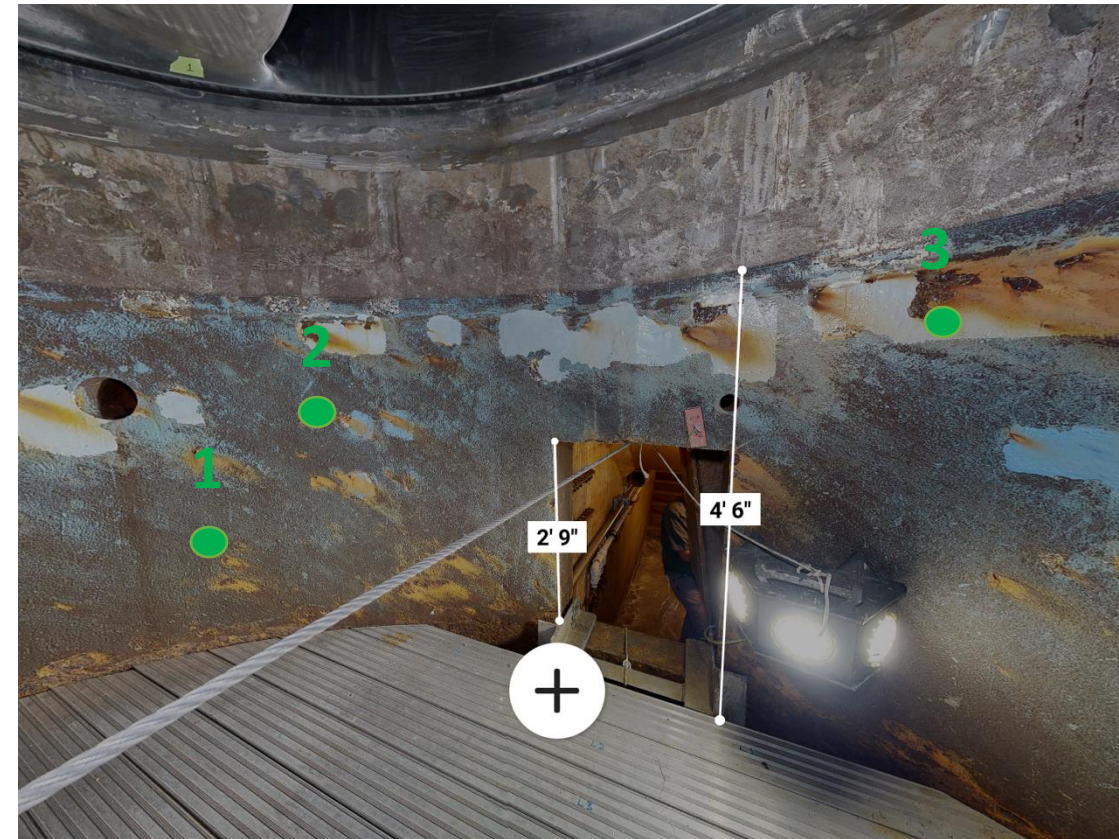
Place 6 targets – cannot place targets on wall
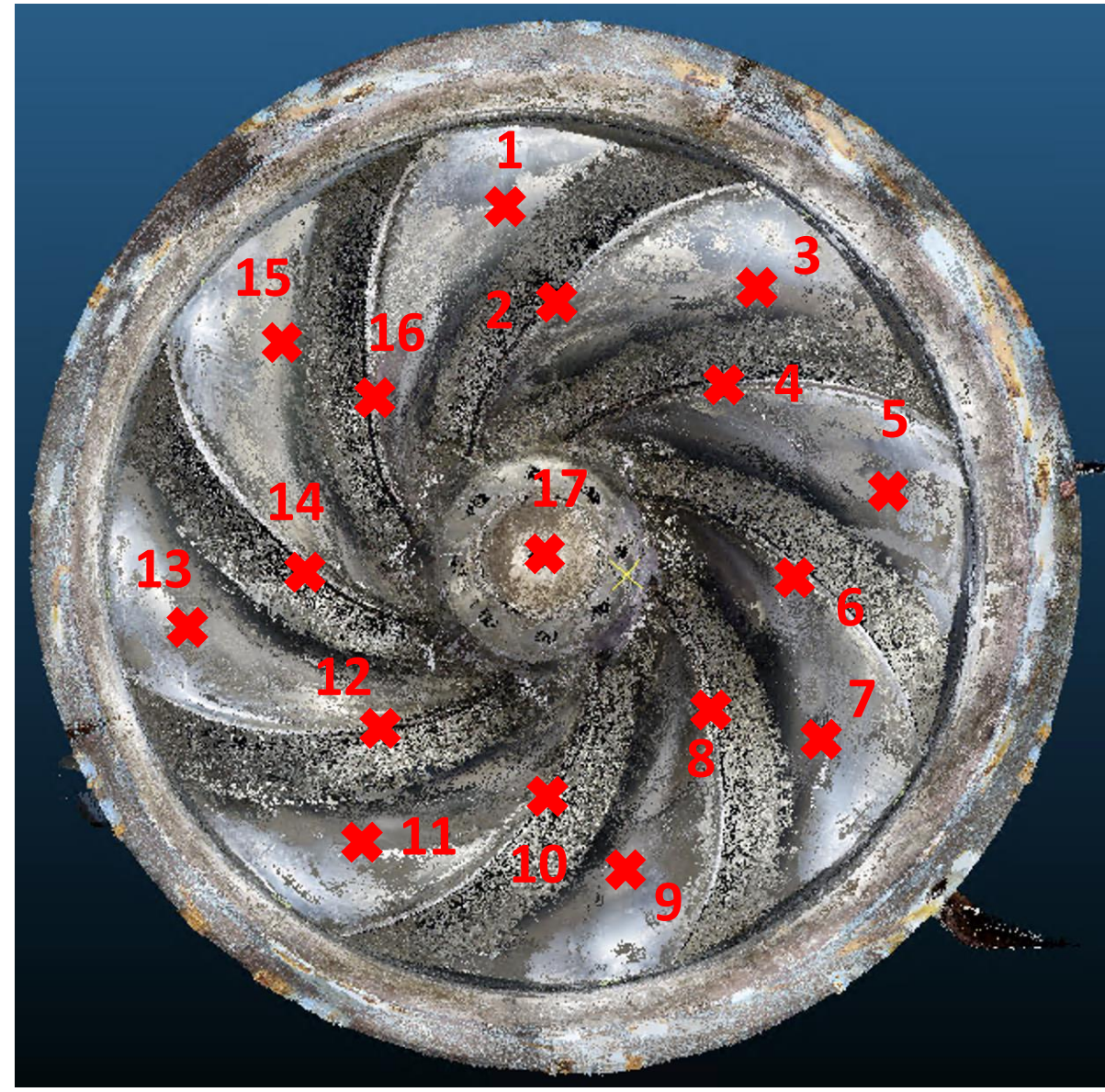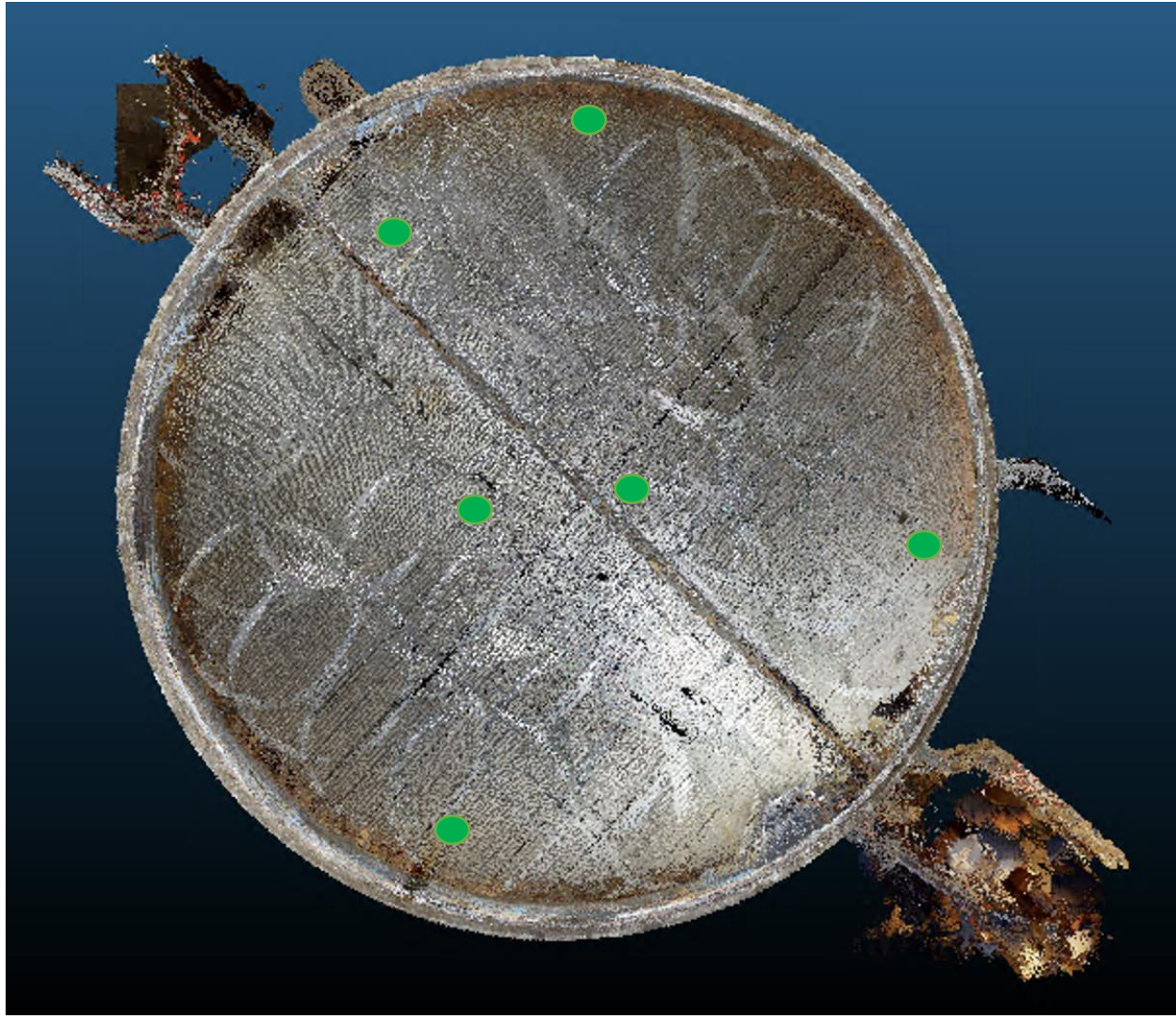

● Targets

Place 6 targets – can attach the wall

Targets

3 targets on the wall, 3 targets on the ground

Place scanner/360 camera at 5' to 6' height

Targets
Scanner/camera

Faro scanner setup

Set up tripod

Check the bubble level

Place scanner by quick-release plate
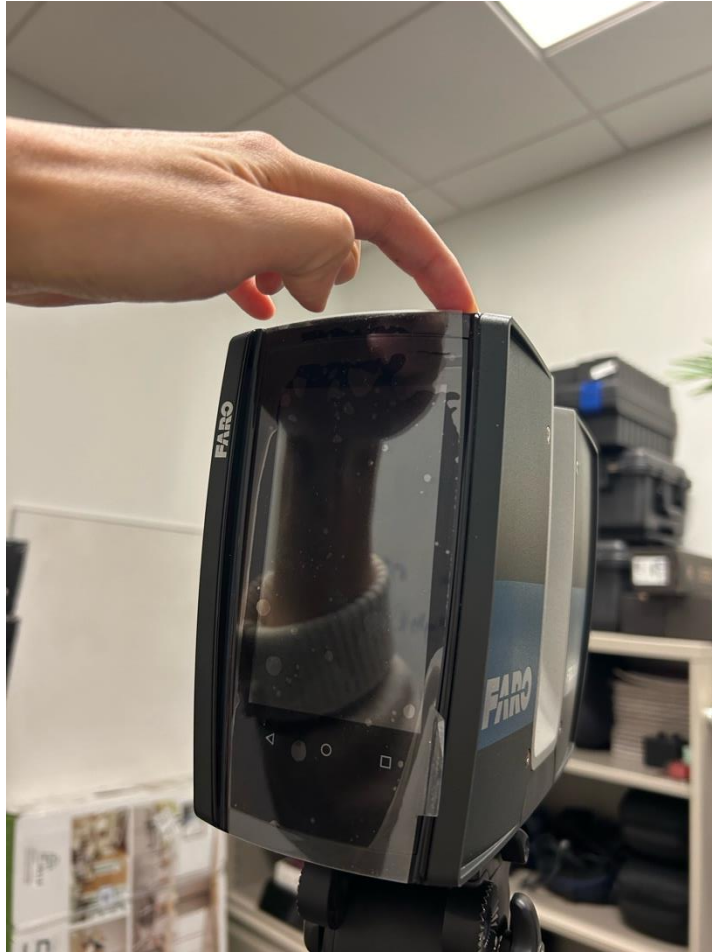
Lock the locking knob

Remove lens protector

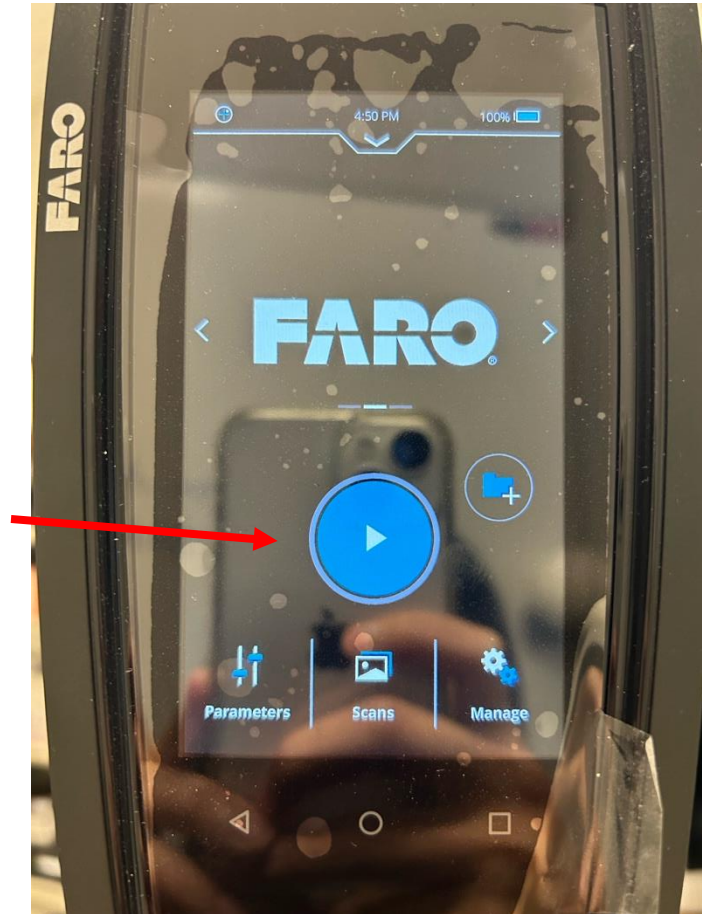Open battery compartment cover

battery

SD card

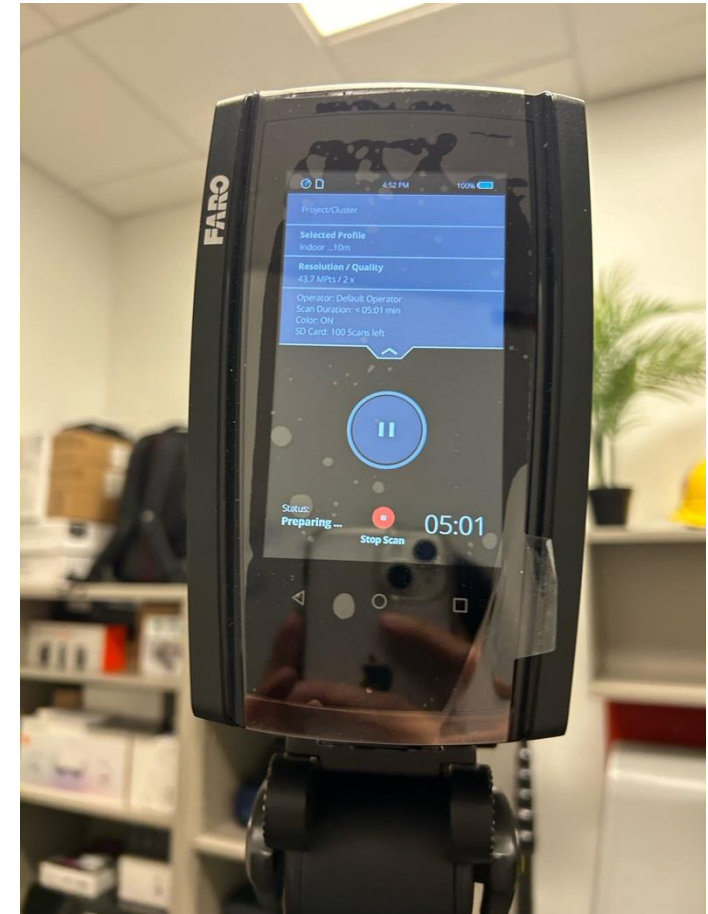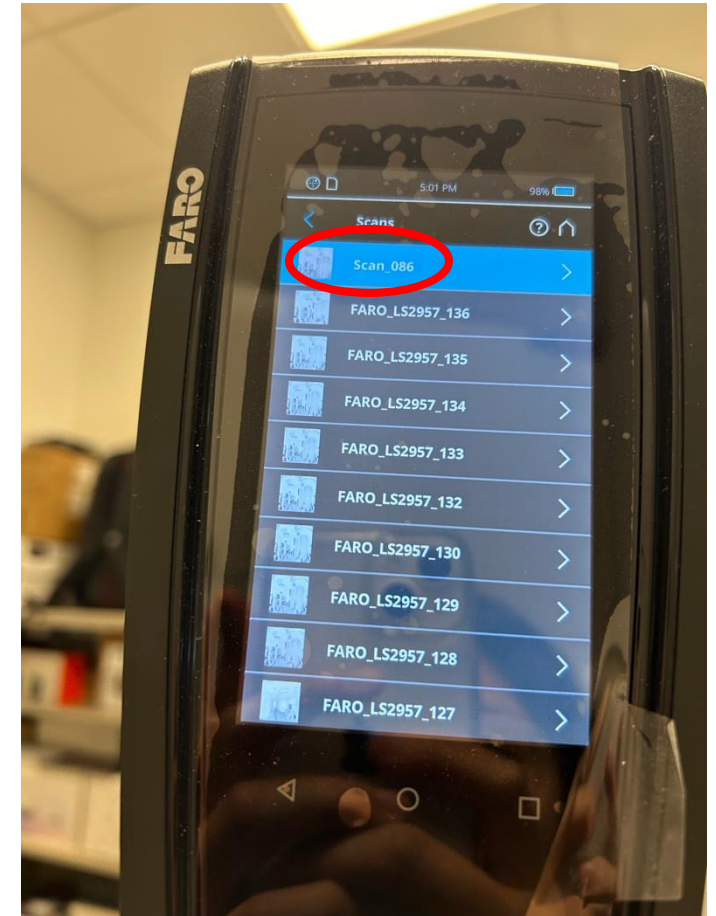Check the battery and SD card

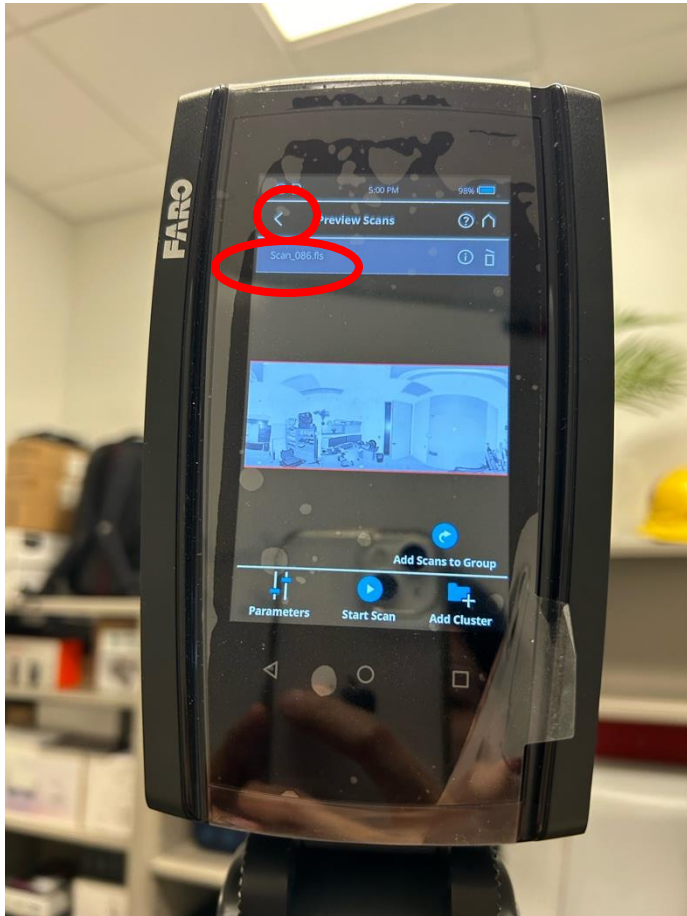Hit power on/off button

Hit button: Start scanning

During Scanning:

1. Stay outside the turbine
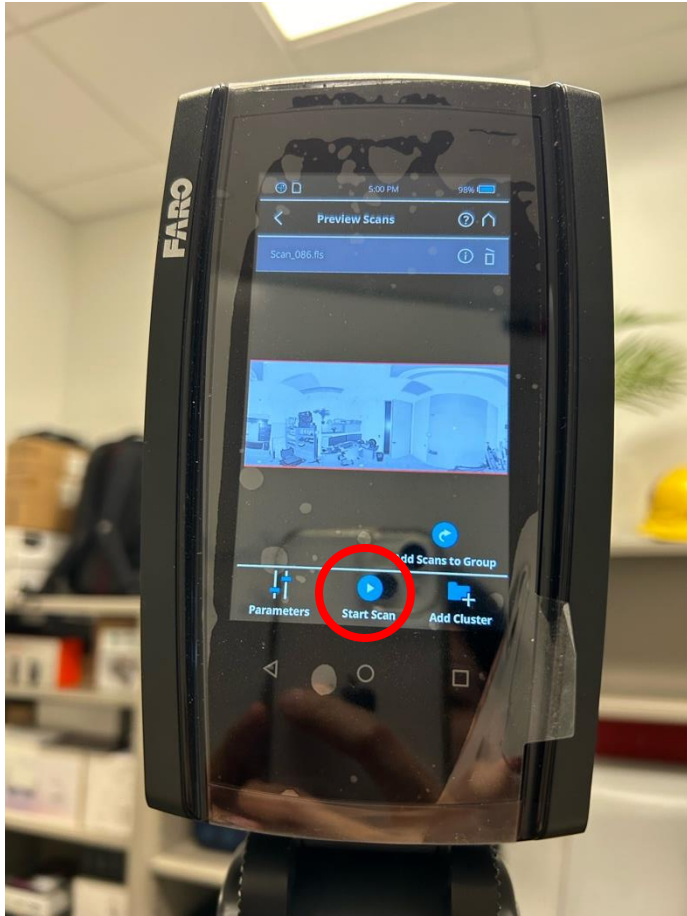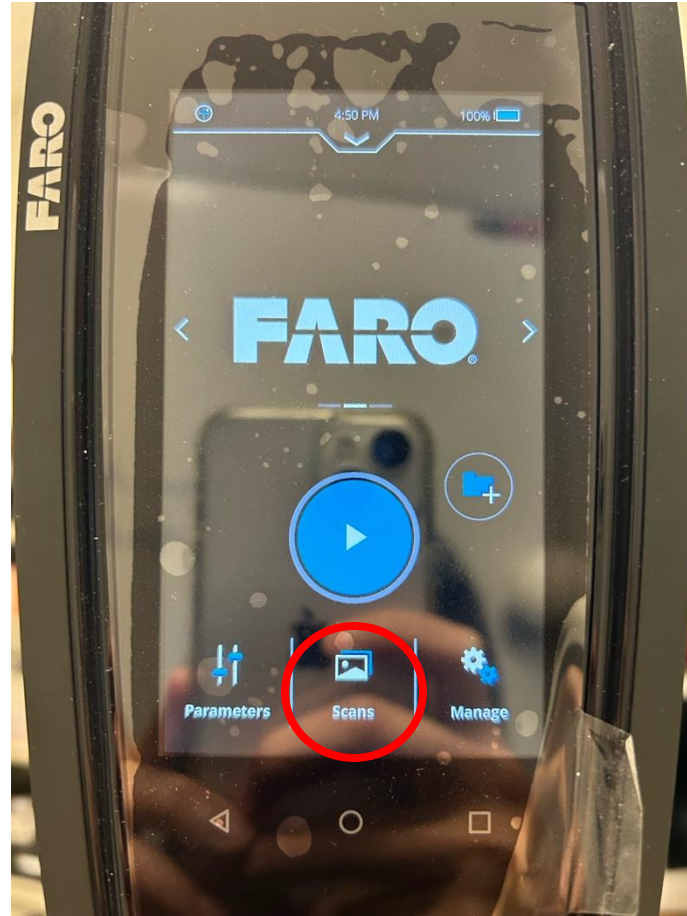
2. Find a corner not to avoid targets

1. Record the file name
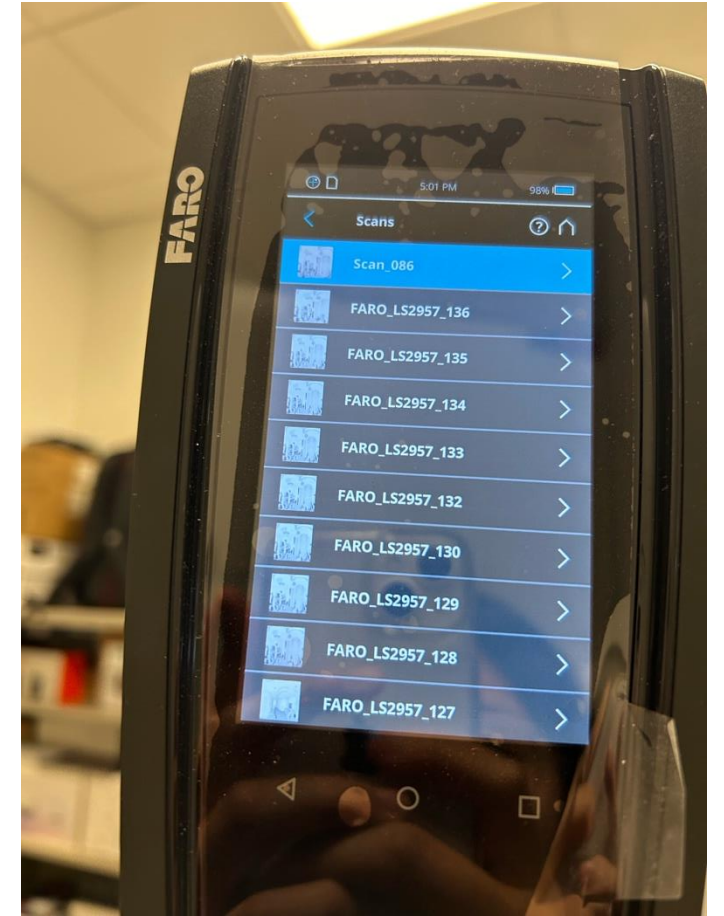
2. Go back to main menu

Check the collected scans

Continue to the collect next scan

Until finish all scans: Check the collected scans

Shut down scanner: Hit power on/off button

Ensure the scanner shut down and extract SD card

Put lens protector back

unlock the locking knob

Turn the knob and remove scanner carefully

Faro Scanner Data Collection

- Ensure the batteries are fully charged

- Not to move the targets

- Stay outside the turbine when collecting data

- Record: if there's labels on turbine blades

No #	Image name	No # blades
1	Scan_086	1

Color	State
Violet blinking	Battery charging. Charge at < 5%
Red blinking	Battery charging. Charge at 5% - 15%
Orange blinking	Battery charging. Charge at 15% - 25%
Yellow blinking	Battery charging. Charge at 25% - 95%
Green blinking	Battery charging. Charge at >95%
Green	(full charged) ~100%
White	no battery
Cyan blinking quickly	error

Insert SD card to desktop

Insta360 Camera Data Collection

- Ensure the batteries are fully charged

- Ensure 9 SD cards are all inserted

- Place camera at 6' height

- After data collection, insert 9 SD cards to the desktop in CAVC541_A