

**Laser Technology, Inc.**

**LaserSoft®**

# **Measure**

**User's Guide**

**5<sup>th</sup> Edition for iOS**



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# 1. Introducing Measure

Thank you for downloading LaserSoft® Measure for iOS! Now you can quickly and easily record, save and share measurements from the TruPulse 200X laser rangefinder to your iPhone or iPad. Measure can also take a photograph and store it within your measurements. A virtual "pick-list" can be created with categories and subcategories for your measurement records as well as additional notes.

## Technical Specifications

LaserSoft Measure has been designed to run on iOS operating platforms for use in conjunction with Laser Technology's TruPulse® 200X w/Bluetooth® laser measurement device.

| Specification                      | Description  |
|------------------------------------|--|
| <b>Supported Operating Systems</b> | iOS version 11.x*<br>* Please check LTI web site for current compatibility<br>( <a href="http://www.lasertech.com/LaserSoft-Measure-App.aspx">http://www.lasertech.com/LaserSoft-Measure-App.aspx</a> )        |
| <b>Supported Devices</b>           | <ul style="list-style-type: none"> <li>• iPhone</li> <li>• iPad</li> <li>• iPod Touch</li> </ul>   |
| <b>Connectivity</b>                | Bluetooth  |
| <b>Hardware</b>                    | <ul style="list-style-type: none"> <li>• Laser Technology, Inc. TruPulse® 200X Series w/Bluetooth® laser rangefinder</li> <li>• Optional specially designed mounting brackets for iPhone (Figure 1)</li> </ul> |
| <b>Supported Languages</b>         | English and Simplified Chinese; templates available for translation  |

Specially designed mounting brackets attach the phone to the laser device to photograph exactly what is seen through the scope. The device does not need to be physically connected to the laser to obtain measurements. This feature allows for a photo of the measured object through the scope:



**NOTE** Contact LTI for further information on compatible mounting brackets and other accessories.

Figure 1

## 2. Getting Started with Measure

This chapter describes the basic knowledge necessary to get started with Measure. It explains how to get the Measure app from the App Store and launch the app. Once the application has been successfully launched, follow the directions in this chapter to use the main menu and configure the settings.

### Getting Measure from the App Store

To get the Measure app from the App Store:

1. Use the App Store search function to search for "Measure".
2. Tap the Measure icon to install the app as you would for any other iOS application.

### Pairing a Phone to a Laser

To ensure a phone is properly communicating with the laser, it must be connected with Bluetooth. To begin this process, verify that the laser is powered on and within range:

1. Find and tap the Settings icon on the phone.
2. Tap Bluetooth on the Settings list (Figure 2). If Bluetooth is listed as "OFF," toggle it to "ON."

If prompted to enter a PIN, the PIN number is 1234 to connect to the laser via Bluetooth.

3. Tap the laser device's serial number (which should be listed among the other devices you connect via Bluetooth on your phone) (Figure 3). Within a few seconds, the laser should be described as "Connected" (Figure 4). Measure is now prepared to communicate with the laser and begin taking measurements.



Figure 2

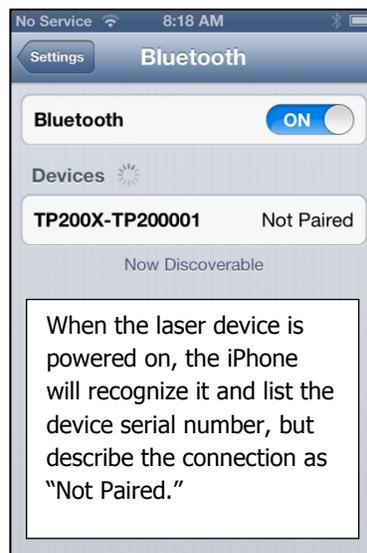


Figure 3



Figure 4

**NOTE** If the laser is powered off when viewing the current or available Bluetooth connections on a phone, the laser device may be described as "Not Connected" even if the two have already paired. Power the laser on and tap the device serial number to re-establish that connection. Sometimes more than one attempt is necessary when establishing the Bluetooth connection between the laser and the phone. It may be necessary to "forget" the laser device from the Bluetooth list and then re-pair them or totally shut down and restart the phone.

## Launching the Measure App

To launch the Measure app:

1. Find the Measure icon on the phone.
2. Tap the Measure icon (Figure 5).



Figure 5

## Using the Main Menu

This is the Measure main menu screen (Figure 6):



Figure 6

- Tap the "Measure" button to begin taking measurements. For more information on using "Measure," see [page 12](#).
- Tap the "Projects" button access all saved measurements. For more information about "Projects," see [page 8](#).
- Tap the "Share" button to send saved measurements or projects to others.
- Tap the "Settings" button to enter the information constant to the set of measurements you are taking. For more information about "Settings" see the following section.
- Tap the "Remote Fire" button to access remote fire capability.

## Configuring the Settings

The Settings area enables the configuration of the settings that will remain constant to a set of measurements taken during a measurement session. In this area, select the desired unit of measurement and build potential categories and subcategories of items you intend to measure.

### Settings Screen Description

When Settings is selected from the Main screen, the user may select the unit of measurement as well as add multiple categories and subcategories of measured items that will be referred to throughout a measurement project. See an example of the Settings screen below (Figure 7):

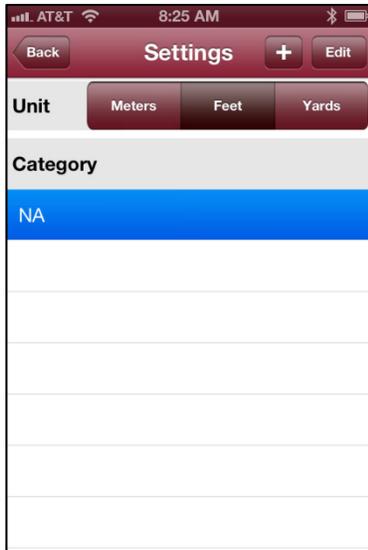


Figure 7

- **Unit:** The measurement unit options match those of the laser device and appear in red blocks near the top of the Settings screen. The selected unit will be dark red. In this example, "Feet" has been selected.
- **Category List:** Because Measure allows measurements to be taken without any defined category or subcategory, the default category "NA" is displayed as a choice. Once the user defines additional categories, they will be displayed here as well.
- **+ button:** Tap to add a category selection as defined by the user.
- **Edit button:** Tap to correct or delete existing category and/or subcategory entries.

**NOTE** The selected unit of measurement from the Settings screen will act as the default unit for all measurements until it is changed here or it will be overridden by a project that was set up with a different unit of measurement and the user is working within that project.

### Categories and Subcategories

Adding a category:

1. Tap the **+** button (Figure 7).
2. Tap in the empty field under "Category" to make the cursor appear and bring up the keyboard (Figure 8).
3. Enter the category name. In this example, "Trees" is used (Figure 9).
4. Tap "Add." The category "Trees" now appears in Measure's category list, and will remain until deleted.

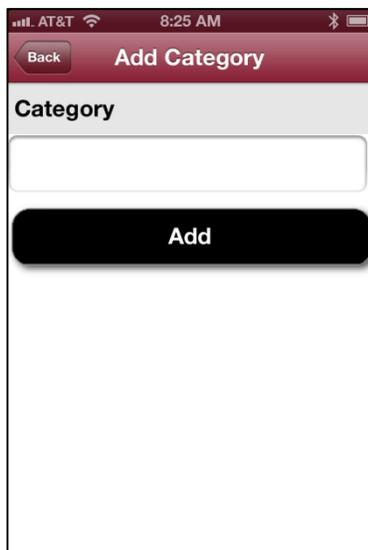


Figure 8

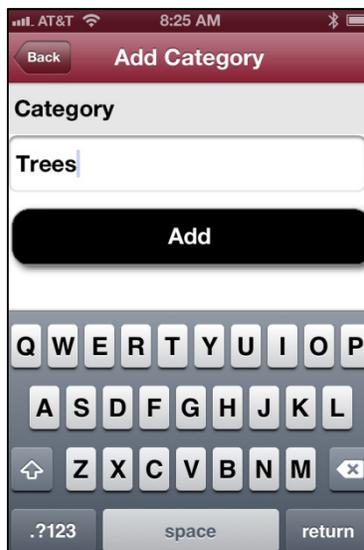


Figure 9

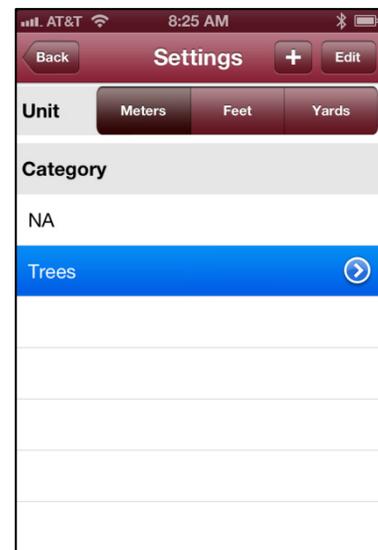


Figure 10

Adding a subcategory:

1. Tap the blue arrow next to the category under which the subcategory will be created. In this example, the category "Trees" is selected to add species subcategories (Figure 10 on page 5). The subcategory list is displayed (Figure 11).
2. Tap the **+** button.
3. Tap the empty field under "Subcategory" to make the cursor appear and bring up the keyboard (Figure 12).
4. Enter the subcategory name here. In this example, "Aspen" is used.
5. Tap "Add." Now "Aspen" is displayed in the Subcategory list under the category "Trees" (Figure 13).

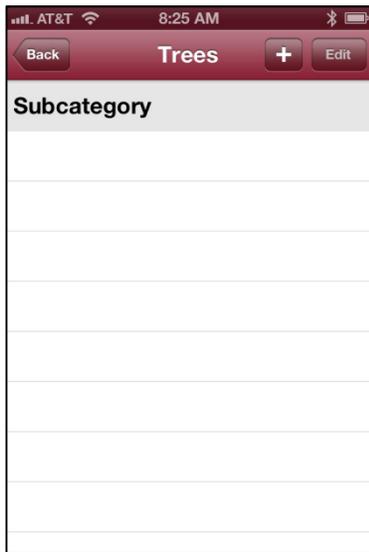


Figure 11

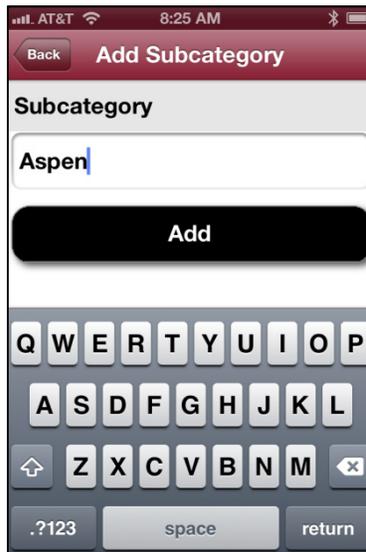


Figure 12

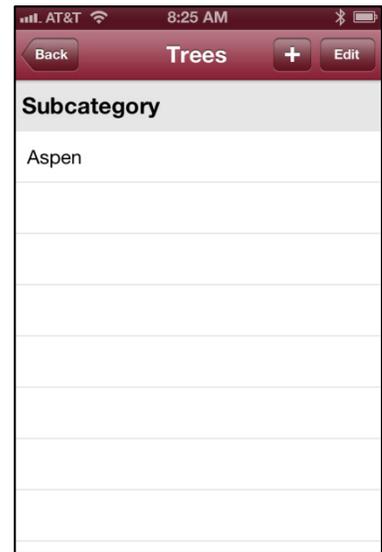


Figure 13

Deleting a category:

1. From the Category List, tap the category to be deleted so that it is highlighted in blue.
2. Tap the **Edit** button in the upper right-hand corner of the screen (Figure 14). Minus signs will appear next to each category in the list.
3. Tap the minus sign next to the category to be deleted (Figure 15). In this example, the category "Other Features" is selected for deletion.
4. Tap the **Delete** button next to the category.
5. Tap the **Done** button in the upper right-hand corner (Figure 16). The deleted category will no longer appear in the Category List.

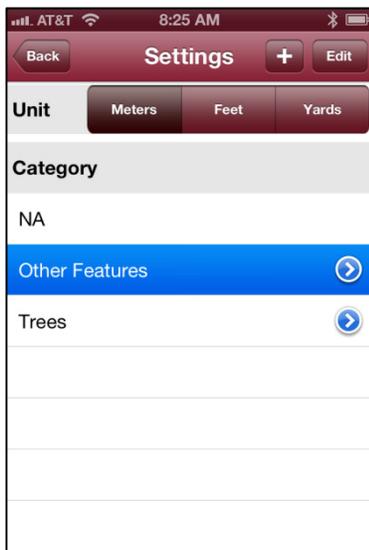


Figure 14

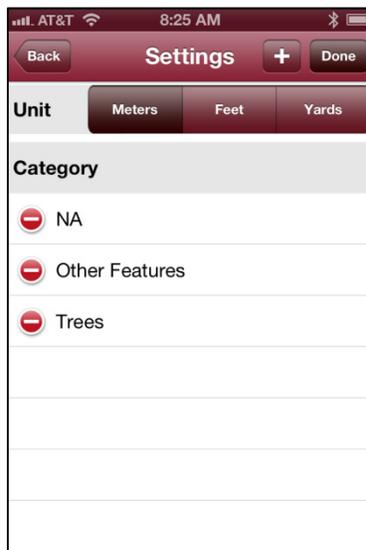


Figure 15

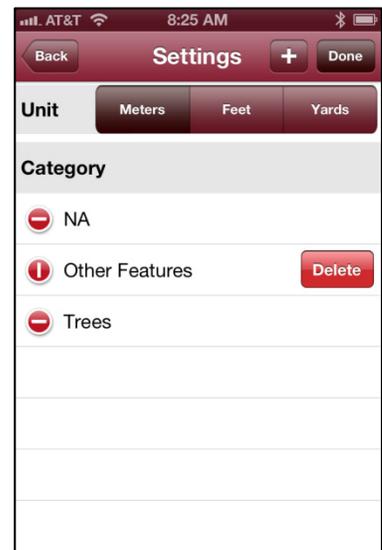


Figure 16

Deleting a subcategory:

1. Tap a category in the category list to display the accompanying subcategories for editing (Figure (17)).
2. Tap the **Edit** button in the upper right-hand corner of the Subcategory List screen (Figure 18). Minus signs will appear next to each subcategory. In this example, the subcategory "Juniper" is selected for deletion.
3. Tap the **Delete** button next to the subcategory.
4. Tap the **Done** button in the upper right-hand corner of the screen (Figure 19). The deleted subcategory will no longer appear in the Category List.

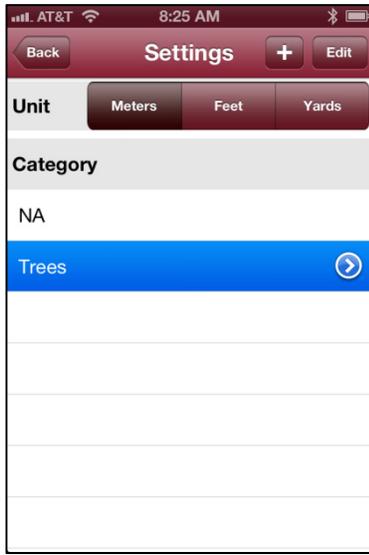


Figure 17

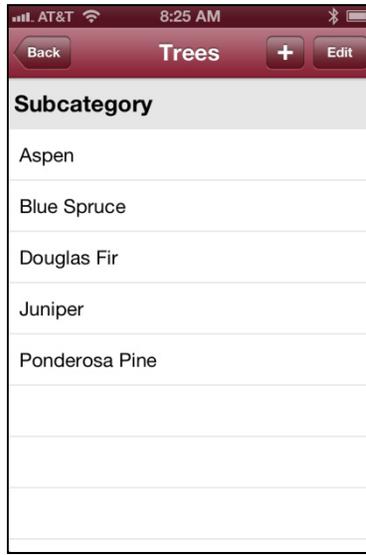


Figure 18

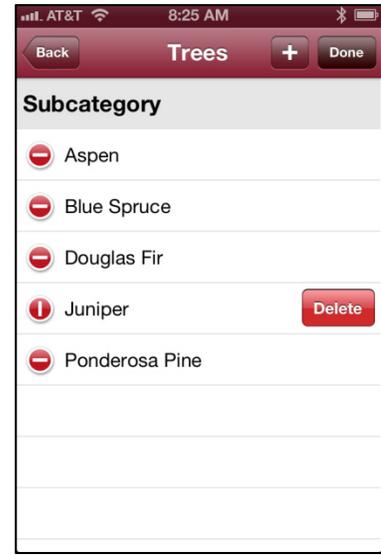


Figure 19

### 3. Projects

Within the Project area of Measure, a user can set up projects that can store a group of measurements together as a unit. Projects can be edited, added to, deleted or shared through various mediums. This section explains how to create and edit Measure projects. Projects must be created before measurements are taken.

#### Creating a Project

1. Tap "Projects" from the Measure main screen. A list of existing projects will be displayed (Figure 20). The project "Default Project" may be the only one if it's the first time a project has been created.
2. Tap the **+** button in the upper right-hand corner.
3. Tap in the empty field under "Project name" to make the cursor appear and bring up the keyboard (Figure 21).
4. Tap to select the preferred unit of measurement.
5. Tap "Add." The new project will appear in the Projects List.

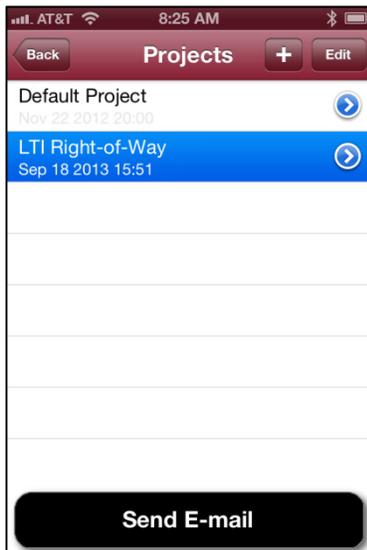


Figure 20

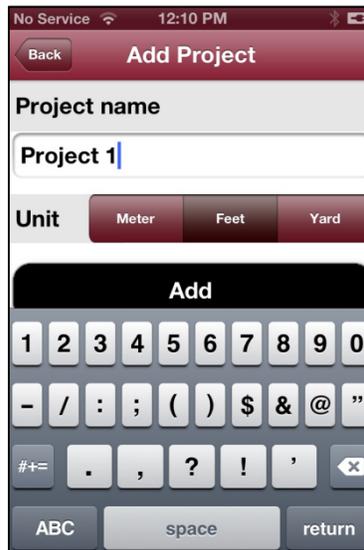


Figure 21

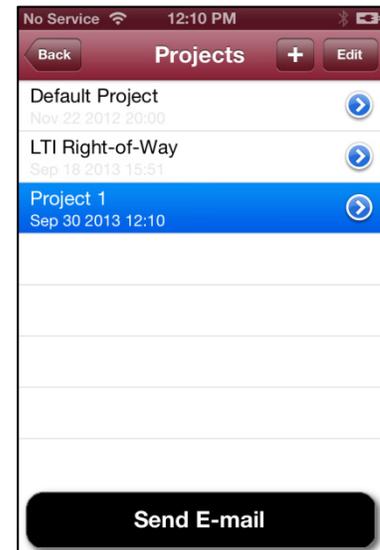


Figure 22

## Accessing and Sharing Projects

### Accessing a Project

1. Tap "Projects" from the Measure main screen. A list of existing projects will be displayed (Figure 23).
2. "Default Project" may be the only one if no other projects have been created.
3. Tap the blue arrow button next to the project to be accessed. A list of shots contained within that project will appear (Figure 24).
4. Tap the shot to review its measurement details (Figure 25).

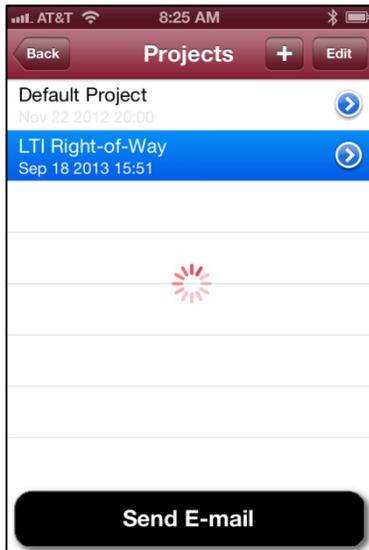


Figure 23

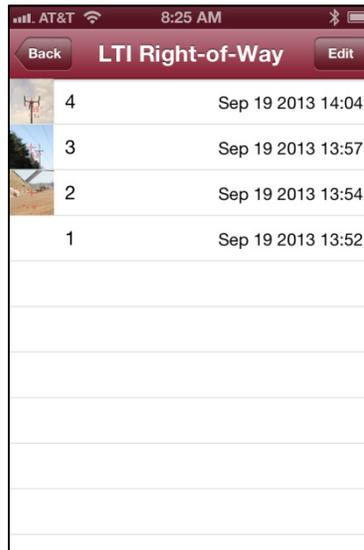


Figure 24

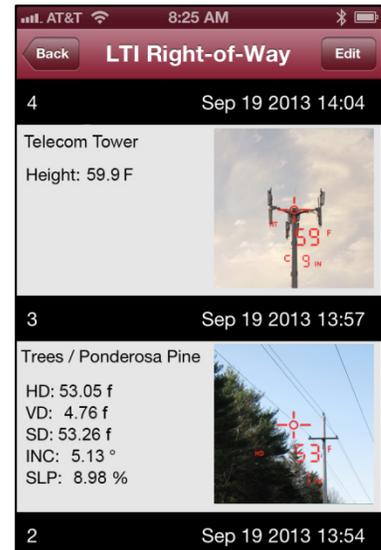


Figure 25

### Emailing a Project

1. To email a project, tap its name to highlight it in blue and tap the "Send E-mail" button at the bottom of the screen (Figure 26).
2. Enter the applicable email addresses and any accompanying message (Figure 27).

**NOTE** The user may choose to email the project immediately or to save it as a draft for later reference.

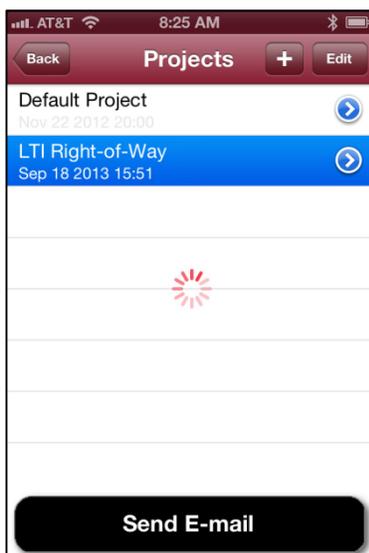


Figure 26

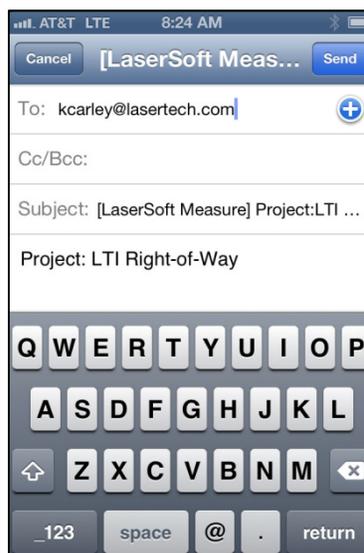


Figure 27

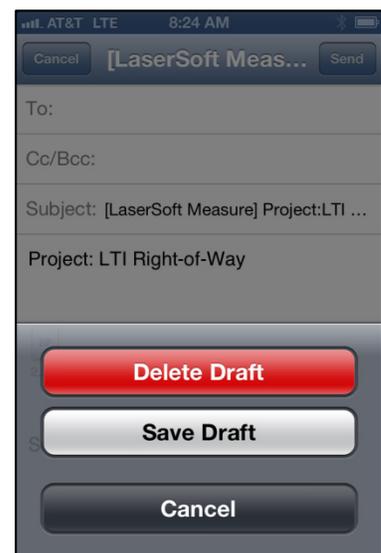


Figure 28

Sharing a Project to Dropbox

1. In order to share a project, one must first be selected. From the Measure main screen, tap "Projects".
2. Tap a project to select it for sharing. The selected project is highlighted in blue (Figure 29).
3. Tap "Back" to return to the Measure main screen.
4. Tap "Share" from the Measure main screen (Figure 30).
5. Tap "Upload to Dropbox." Measure displays the upload status (Figure 31).

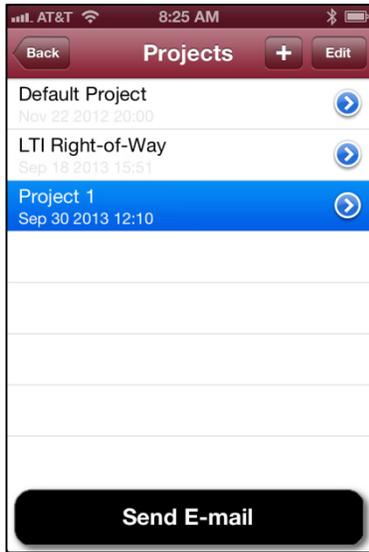


Figure 29



Figure 30

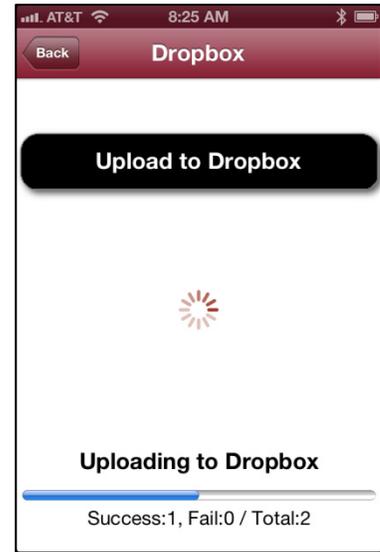


Figure 31

**NOTE** Users must have a Dropbox account in order to upload files to it. If a Dropbox account does not exist, the user will be prompted to create one.

For both emailing and uploading to Dropbox, Measure outputs project reports in .HTML format (Figure 32). The HTML file and the accompanying photos will appear in the Dropbox or attached to an email. Double-click the Project filename to open the measurement report details as shown below.



Figure 32

**NOTE** DO NOT delete the Measure iOS folder that is created in your Dropbox upon the very first upload attempt. Doing so will cause an inability to re-connect to Dropbox from the Measure app. Contact Dropbox customer service to re-establish accidentally deleted folders.

## Deleting a Project

1. From the Projects List screen, tap the  button in the upper right-hand corner (Figure 33). Minus signs will appear next to each project in the list.
2. Tap the minus sign next to the project to be deleted.
3. Tap the  button that appears next to it (Figure 34). If the project contains measurements, a warning message will appear notifying that all shots within the project will be deleted in addition to the project itself (Figure 35).
4. Click "OK." The project and all the accompanying shots are now gone from the Projects List.

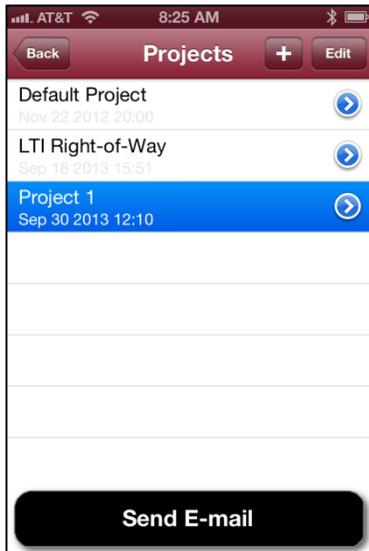


Figure 33

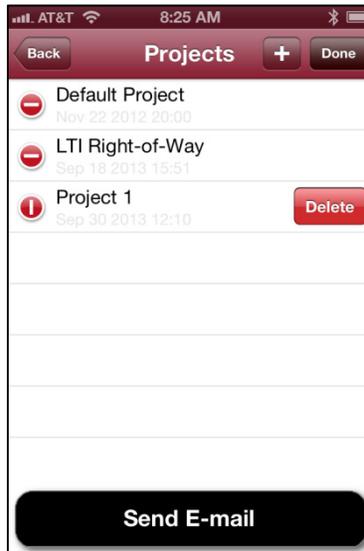


Figure 34

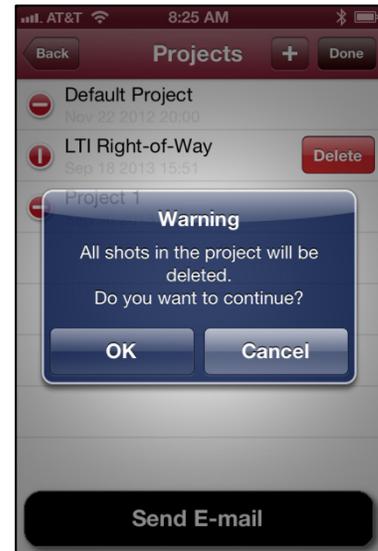


Figure 35

## 4. Taking Measurements

Measure can provide laser data in four different measurement modes: Distance, Height, Missing Line, and Angle and offers many additional options not possible with a laser device alone. In addition to precise measurements, a user may preview and capture an image and store that image with the measurement record. There are also some organizational features available in MapSmart, Laser Technology's field mapping software also found in Measure without the need for a data collector: Pick list categories and subcategories, Auto store, and the ability to save projects for later reference.

### Using the Measure Screen

To begin taking measurements, it is helpful to understand the Measure screen and become familiar with the terms used. Below is a summary of Measure screen functions (Figure 36):

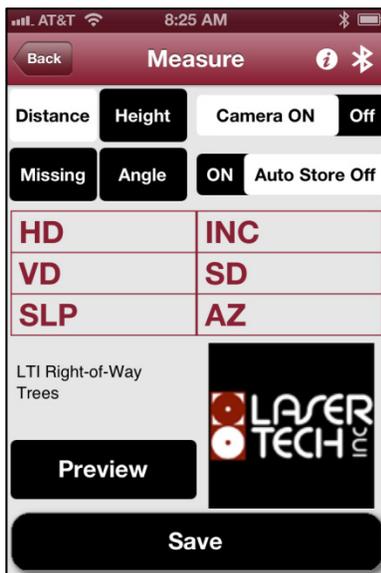


Figure 36

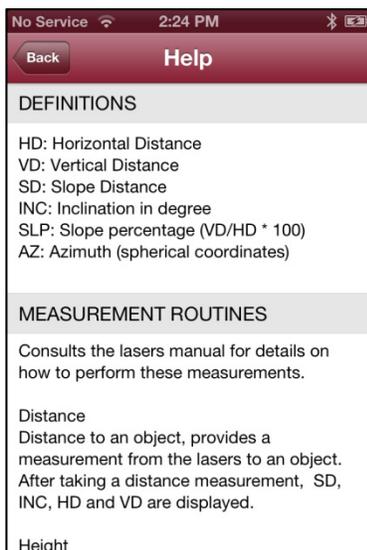


Figure 37

- Select a measurement mode by tapping Distance, Height, Missing or Angle in the upper left-hand corner of the screen. The selected mode will appear with a white background.
- Measure allows a user to take a photograph with each measurement. This feature may be turned on or off.
- If the AutoStore feature is on, Measure will remember the chosen category, subcategory, and note for each shot from the last.
- The empty fields HD (Horizontal Distance), VD (Vertical Distance), SLP (% Slope), INC (Inclination), SD (Slope Distance), and AZ (Azimuth) will be populated with data when a shot is taken. **NOTE** In order to get an azimuth value, a laser with that capability must be used.
- Above the Preview button, Measure displays the chosen project, category and/or subcategory if they were pre-selected in Settings. Otherwise, "Default" will appear as a placeholder.
- Tap the "Preview" button to open a camera view of the shot to allow a photograph to be taken.
- Tap the "Save" button to store the shot to the current project.
- A white  icon indicates the laser and phone are paired and ready to work.
- The  symbol in the upper right-hand corner (Figure 36) opens a shortcut to a quick reference guide (Figure 37) and link to the full Measure User's Guide.

## Measurement Modes

### Distance

1. From the Measure screen, tap the "Preview" button. A screen will appear allowing for a photograph to be taken when "Fire" is pressed on the laser device (Figure 38). If a photograph is not necessary for the shot, simply press "Fire" on the laser device without tapping the "Preview" button. The empty measurement fields are populated with the laser measurement response with a mini version of the photograph taken (Figure 39).
2. To save the measurement, tap the "Save" button at the bottom of the screen where any additional notes may be entered (Figure 40). Saved shots may be recalled through the Projects List and reviewed or shared.

**NOTE** If you do not wish to save, simply take your next shot and the new measurement results will display on the Measure screen.



Figure 38

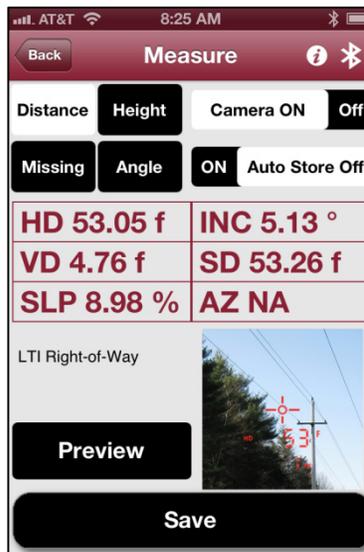


Figure 39

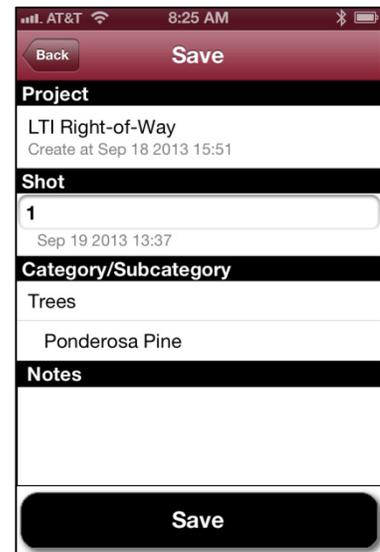


Figure 40

### Height

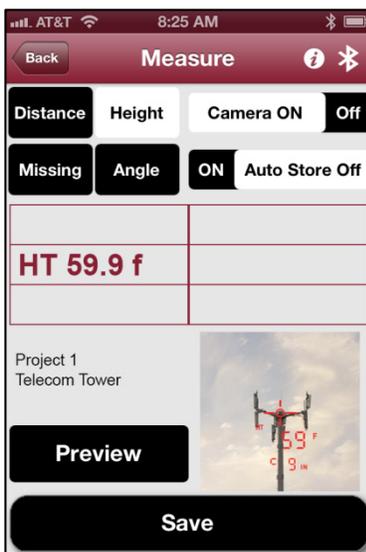


Figure 41

From the Measure screen:

1. Tap the "Height" button in the upper left-hand corner of the screen. Height is the active measurement mode when it is highlighted in white. When Measure is set in a specific measurement mode, the laser will adopt that measurement mode and does not require manual mode change.
2. Tap the "Preview" button if a photograph is required. Measure will take the photo with the last shot of the height routine (i.e. the top of the item being measured).
3. Follow the laser-guided three-shot height routine. Upon finishing the third shot of the height routine, the height measurement will display on the Measure screen in the left/center data field (Figure 41).

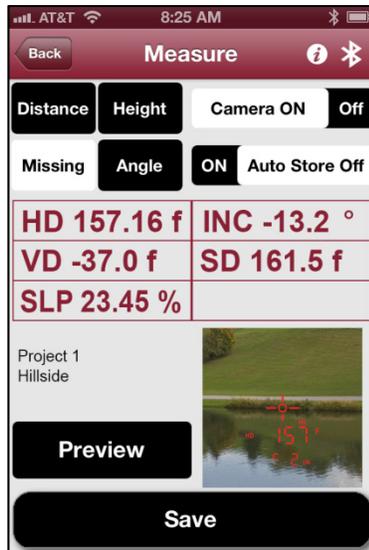
Missing (Missing Line)

Figure 42

From the Measure screen:

1. Tap the "Missing" button in the upper left-hand corner of the screen. Missing is the active measurement mode when it is highlighted in white. When Measure is set in a specific measurement mode, the laser will adopt that measurement mode and does not require manual mode change.
2. Tap the "Preview" button if a photograph is required. Measure will take the photo with the last shot of the missing line routine.
3. Take the shots following the laser-guided missing line routine. Upon finishing the third shot of the missing line routine, the measurement will display on the Measure screen (Figure 42).

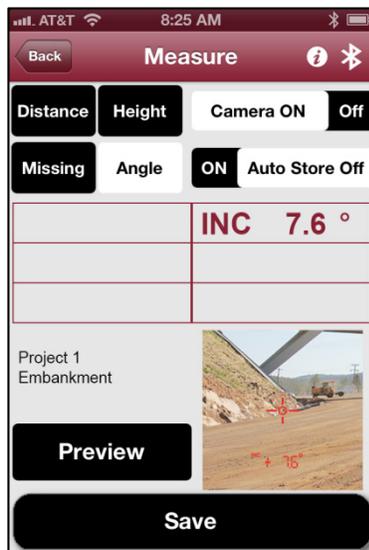
Angle

Figure 43

From the Measure screen:

1. Tap the "Angle" button in the upper left-hand corner of the screen. Angle is the active measurement mode when it is highlighted in white. When Measure is set in a specific measurement mode, the laser will adopt that measurement mode and does not require manual mode change.
2. Tap the "Preview" button if a photograph is required. Measure will take the photo with the last shot of the angle routine.
3. Take the shots following the laser-guided angle routine.
4. Upon finishing the last shot of the angle routine, the measurement will display on the Measure screen (Figure 43).

**NOTE** Tap the Save button after each measurement that should be saved. If the Save button is not tapped between shots, Measure is designed to continuously override the previous shot.

## Deleting a Measurement

A single measurement shot may be deleted from a project as follows:

1. Tap the "Projects" button from the Measure main screen.
2. Tap to open the project that houses the shot to be deleted (Figure 44).
3. Tap the  button in the upper right-hand corner of the screen (Figure 45). Minus signs will display next to each shot.
4. Tap the shot to select it, and then tap the  button that displays on top of it (Figure 46).

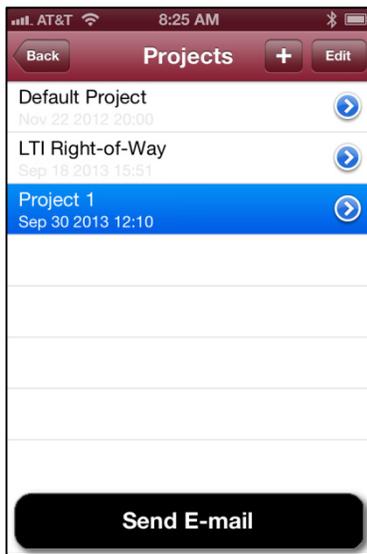


Figure 44

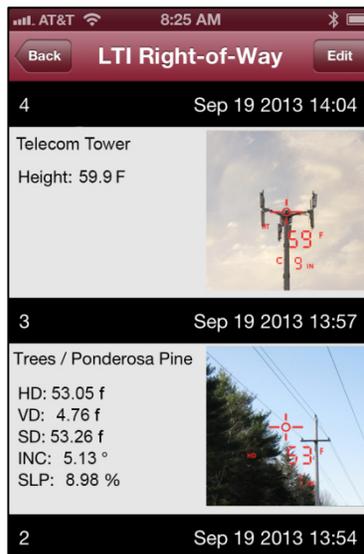


Figure 45

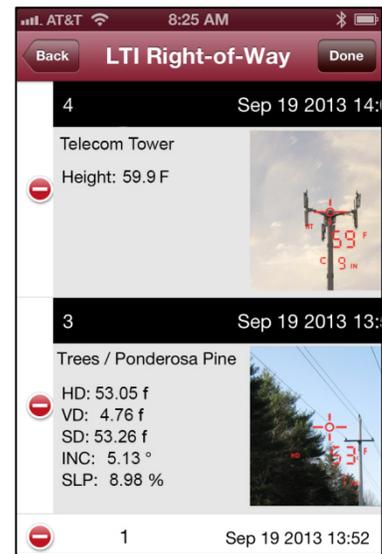


Figure 46

## Remote Fire



Figure 47

To simply fire a laser without using the Measure module, tap the "Remote Fire" button from the Measure Main Screen (Figure 47).



Figure 48

Wait until the Bluetooth icon in the upper-right corner of the screen turns white before firing (Figure 48). If a laser has not yet been paired to the phone, the Bluetooth icon will remain black, which indicates there is not a connection. If a laser has already been paired, tap the Bluetooth icon to display a list of the phone's connected devices and manually choose the laser from that list. Refer to Page 3 for instructions on pairing a phone to a laser.

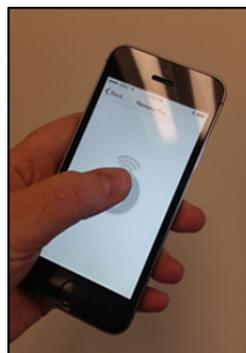


Figure 49

Be advised that using this trigger function is just like pressing fire on the laser device. Press and hold it very briefly until the measurement appears in the heads-up display (Figure 49). If the laser has continuous mode functionality, press and hold the FIRE button until finished, and then release the button.