**Growth Measurement Protocols Nurseries:**

**Equipment**

Underwater Camera

15 cm ruler

A slate

Diving/ snorkeling equipment

**Preparation**

Fully charge the underwater camera

Make sure the camera is well sealed and everything intact

**Snorkeling Tables**

Snorkeler A and B pulls the structure from the bottom (Read manual)

Snorkeler A takes pictures while B holds the ruler

Check for the tag on the top most branch and take a picture of the table number

Then locate the immediate coral fragment after the tag and take growth measurements for all the coral fragments on the branch

Locate the branch that is directly below the **tag,**  take growth measurements from the innermost end of the branch (Side with the tag) to the outer. Then repeat the same for the remaining branches on the table.

Note: Take reference pictures (Aerial picture of the whole branch), after completion of each block to separate the images.

**Bricks**

Diver A and diver B both descend to the bottom at the restoration site

Diver A takes pictures while diver B holds the ruler

Check for the tag on the top most brick and take a picture of the tag number

Then locate the immediate coral fragment at/after the tag.

In a clockwise direction, take growth measurements for all the coral fragments on the brick - (take a reference picture after every brick)

Locate the brick layer that is directly below itand then start with the coral fragment just below the tag.

In a clockwise direction, take growth measurements from one end of the brick layer to the other.

Move to the brick layer just below and begin on the **same** side repeating the same process as the previous layer and subsequently finish with the bottom most layer of the unit.

**Block Unit**

Diver A and diver B both descend to the bottom at the restoration site

Diver A takes pictures while diver B holds the ruler

Check for the tag on the top most block and take a picture of the number

Then locate the immediate coral fragment after the tag and in a clockwise direction, take growth measurements for all the coral fragments on the block- (take a reference picture after every block)

Locate the block that is directly below the **tag** of the top most block: in a clockwise direction, take growth measurements from one end of the block to the other. Then do the same for the second block on that layer.

Move along to the third layer of the unit and begin on the **same** side repeating the same process as the previous layer and subsequently finish with the bottom most layer of the unit.

Note: Take reference pictures (Aerial picture of the whole block), after completion of each block to separate the images.