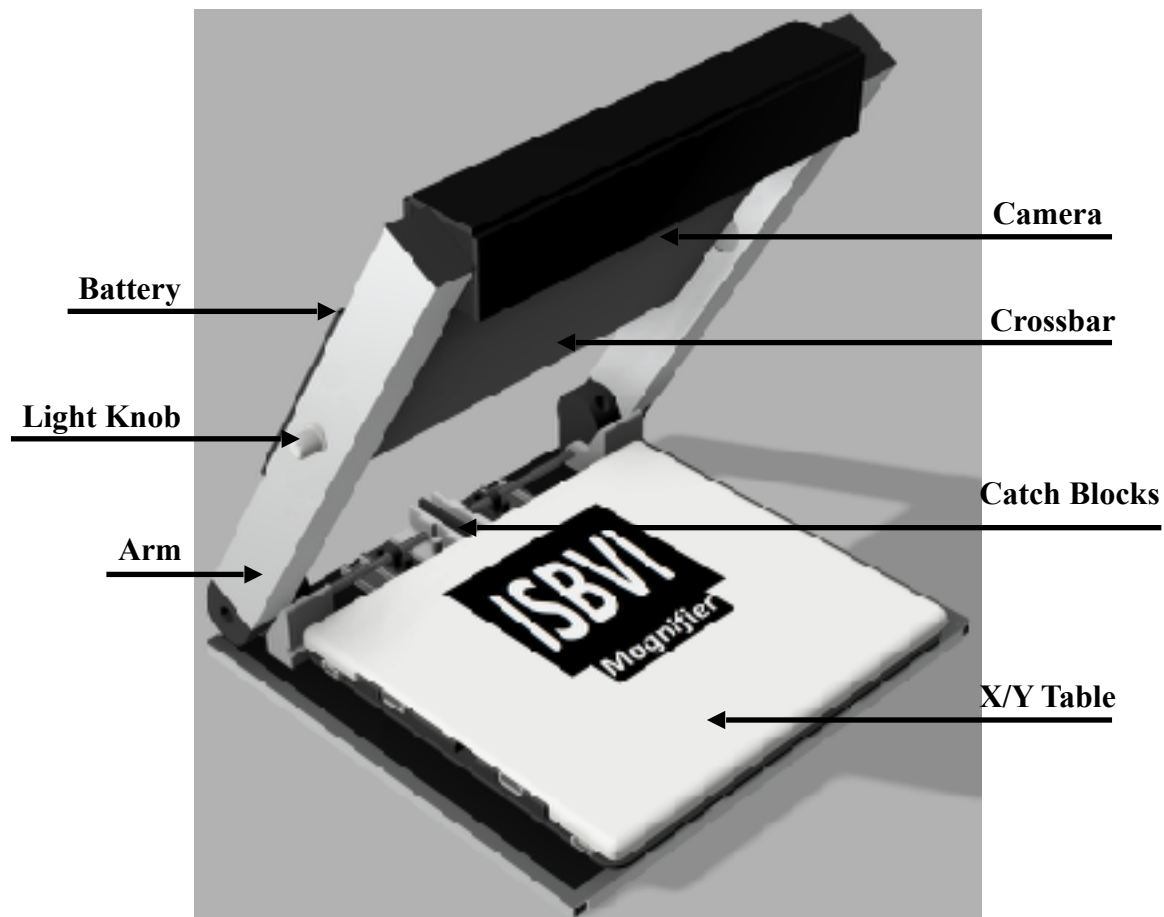


Purdue EPICS Magnifier User-Manual

The Magnifier is a device that provides magnification for individuals with visual impairments while using the iOS application developed by the ISBVI EPICS team at Purdue University. This magnification is available through the USB-camera attached to the support system. The device is designed to connect from one's iPad to a wireless router imbedded in the device. Once the iPad has been connected, individuals are able to livestream documents onto their iPad for magnification.

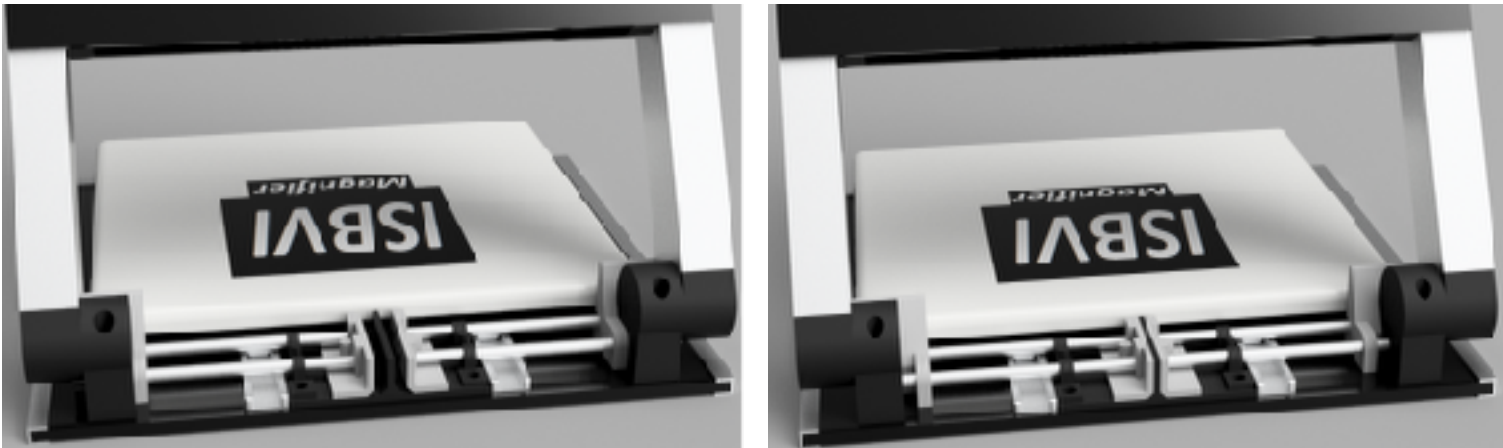
Mechanical Setup

This user friendly device is compiled of the simple parts labeled below in **Figure 1.**



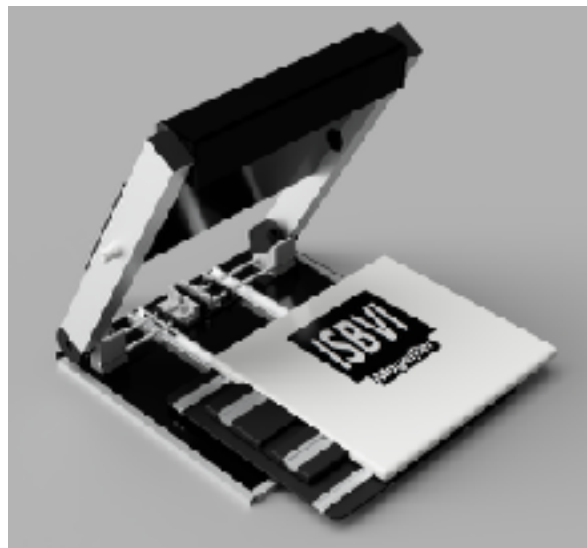
- In order to set up the physical device, raise the **arms** to rest against the **catch blocks**.
- When you wish to collapse the device to make it more portable, make use of the **spring catch system** modeled below in **Figure 2**.
 - As the images show, pinch the tabs located in the middle, below the **crossbar** to collapse the device.

***Figure 2**



- The document being displayed through the Magnifier will be placed on the **X/Y Table**.
 - Use of the **X/Y table** is displayed in **Figure 3**. Table is adjustable by hand.

***Figure 3**



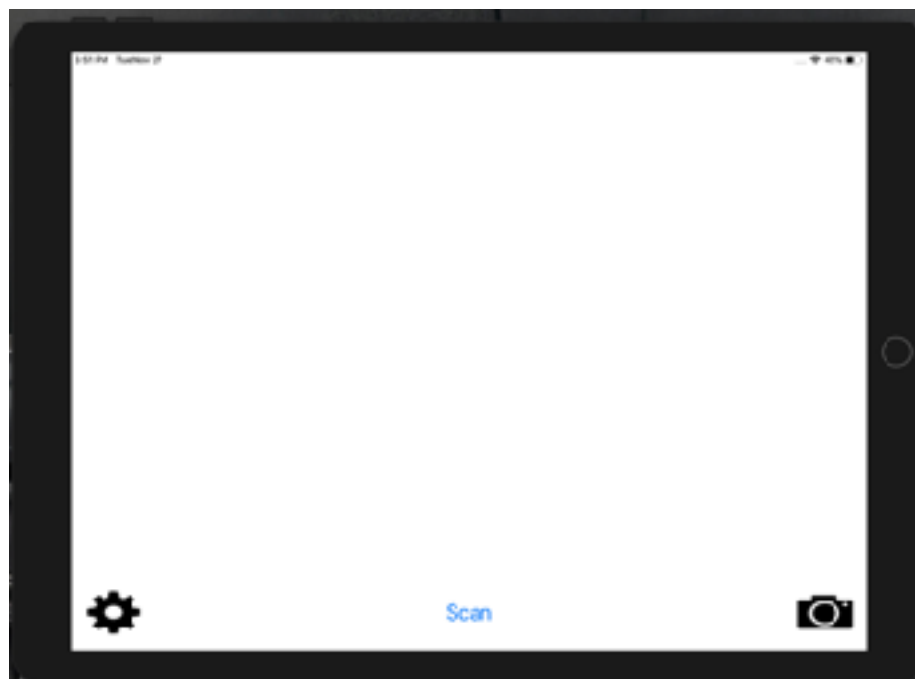
- Documents will be streamed through the **camera**, located at the top of the device. Camera lighting can be controlled by the **light knob** located on one of the arms.
- Before connecting the iPad to the Magnifier, be sure it is open for about 30 seconds. This is time needed for the Magnifier to load.
- In order to connect the iPad to the device, go to the Wifi (in the settings app on your iPad) and connect to the router. The router can be found under the name, Magnifier 1.
 - Then, use the camera (on your iPad) to scan a picture of the QR code. The QR code can be found on the backside of the **crossbar**.

Software Setup

Once you have set up your device, you will be able to access and manipulate the livestream document through your iPad.

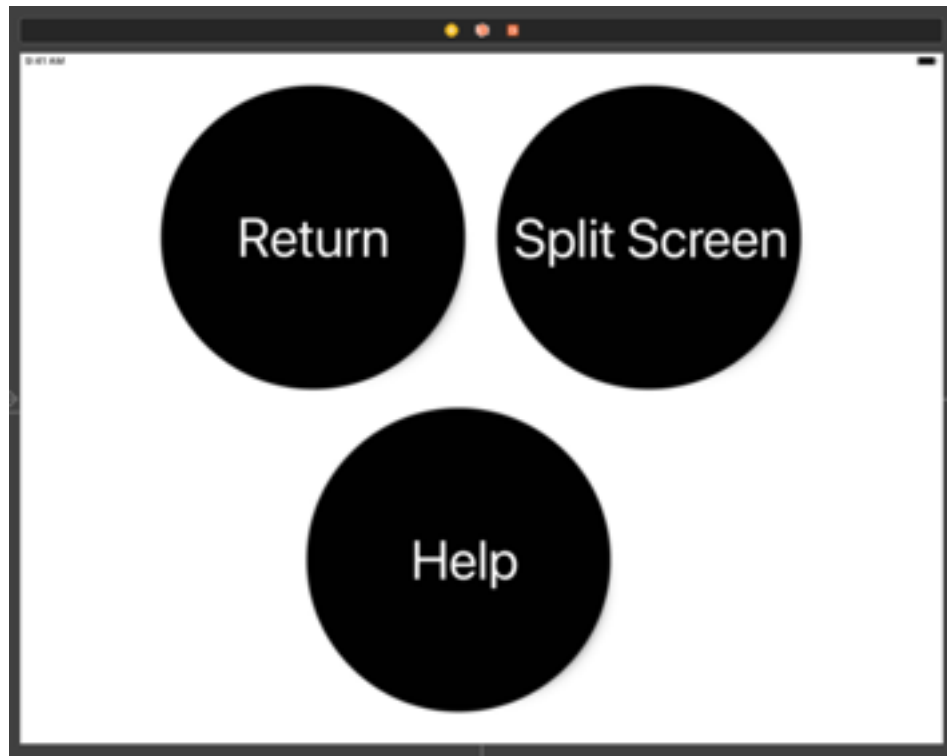
- Immediately upon connecting the iPad to the Magnifier, the iPad will display a livestream of the document placed below the camera. The iPad screen will look much like **Figure 4**.

***Figure 4**



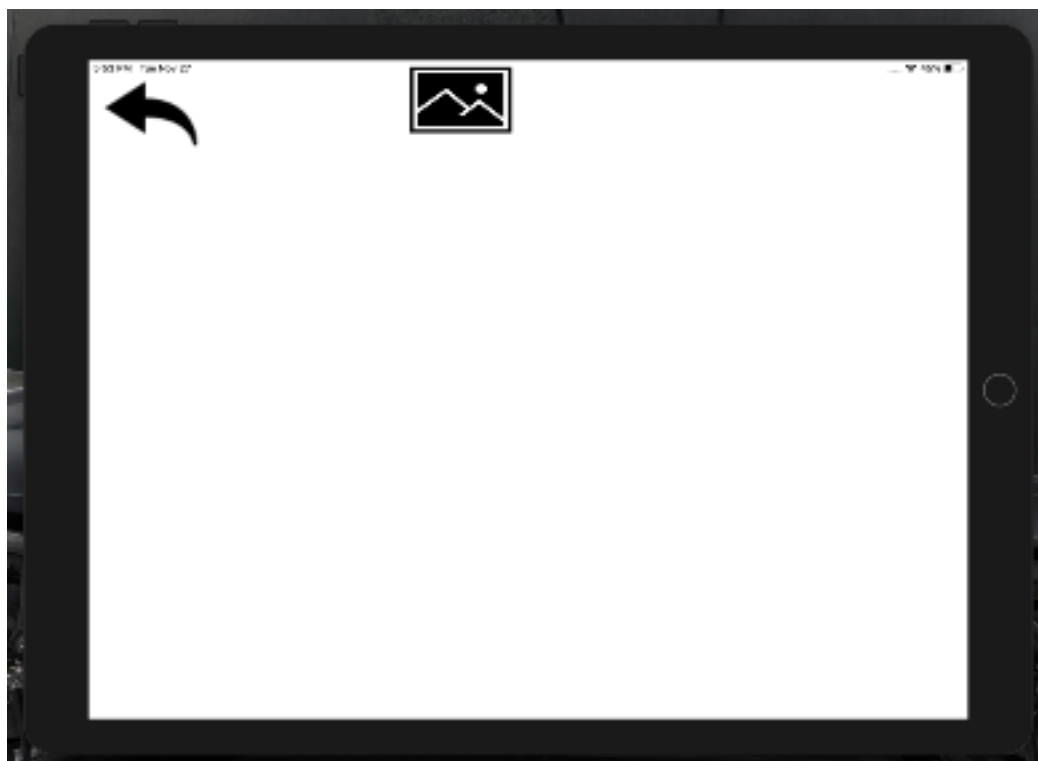
- The bottom left settings icon will lead you to the Menu Controller.
- The Menu Controller is below depicted in **Figure 5**. As the image shows, there are three circles that can be accessed through touch. Once you have clicked on one of the circles, you will be directed to that specific feature. Each circle contains a unique feature as described below.

***Figure 5**



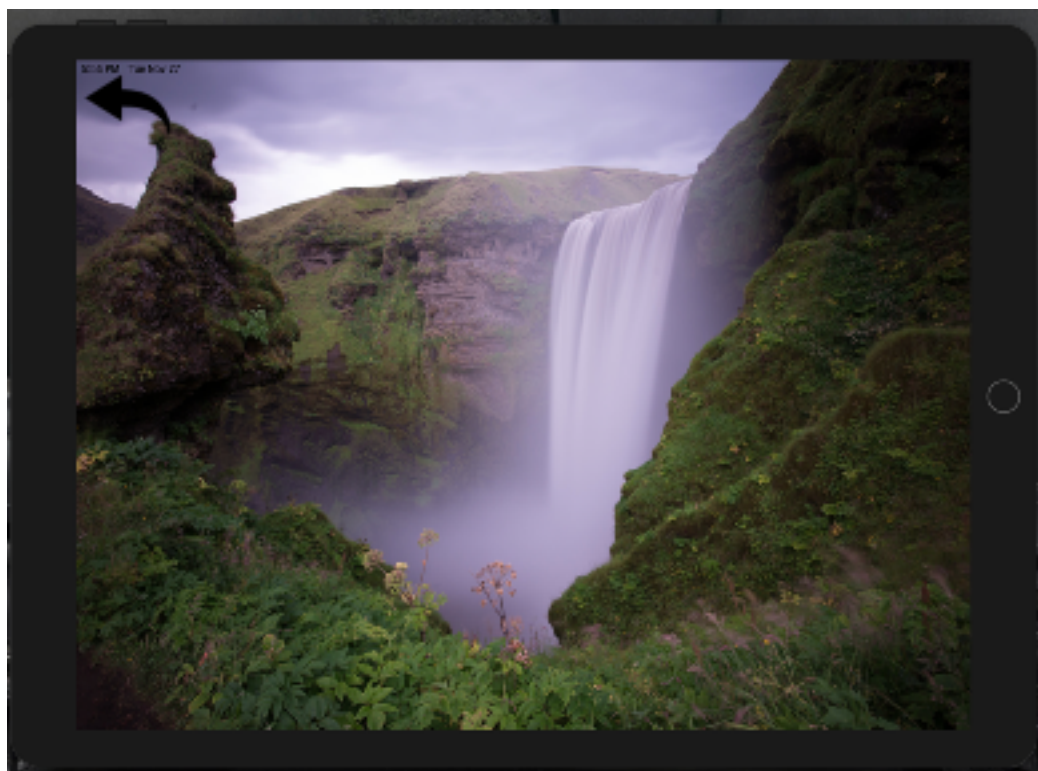
- Return - This will take you back to the the main screen of the app. Here, you can view a live stream of the document placed under the camera. One can zoom and manipulate the image simply by spreading your index finger and thumb across the screen.
- Split View - Through this feature, you can view the livestream document (on the left side of the screen) along with a still image (on the right side of the screen). This image can be a screenshot of the document being streamed or a photo from your iPad.
 - In order to take a screen shot, tap the camera icon in the bottom right hand corner in **Figure 5**. This will snap a still image of the document being streamed immediately switch to split screen. Your screen look much like the one below, **Figure 6**.

***Figure 6**



- In order to access old photos, tap photo icon in the middle of the top of the screen of **Figure 6**.
- Double tap the image on the right side of split view to view the still image in full screen as displayed below in **Figure 7**.

***Figure 7**



- Help - This will lead you to this document, the User Manual.

- **Frequently Asked Questions**
 - What if I want to invert the colors on my screen?
 - If you would like for the colors on your screen to be inverted, access the Settings app on your iPad. From there, tap General > Accessibility > Turn on the option for Invert Colors (it is under the Vision section on top).
 - What happens if I scan the QR code and there is no video stream?
 - If the video stream fails to load, be sure to double check that you are connected to the Wifi.
 - How do I change the batteries?
 - The battery pack is located on the back of the crossbar. The Magnifier uses AA batteries.
 - Can I hook up more than one iPad to one single Magnifier?
 - Yes, you can hook up more than one iPad to a single Magnifier. Simply follow the steps when connecting listed above in Mechanical Setup for both iPads.

- **Any further questions can be directed to the following EPICS members.**
 - For physical device needs, contact Aditya Mishra-mishra59@purdue.edu
 - For software needs, contact Nick Rosato-rosaton@purdue.edu
 - For any user needs issues, contact Sheila Schuh-schuhs@purdue.edu