



## Sprint timer system

### Content

- Monitor bag:
  - 24" Philips monitor
  - Power cord
  - Power board
  - HDMI cable
  - Tripod adapter plate
- Pelican case:
  - Mac Mini
  - Power cord
  - USB mouse
  - Keyboard
  - Lightning cable (for keyboard)
  - USB-C cable
  - iPad mini
  - Clip-on 2x zoom lens
  - Quad lock adapter
  - Medium extension
  - 1" ball with tripod threads
  - 1" ball with clamp stud
  - Manfrotto super clamp
  - Nikon Binoculars
  - iPod pouch:
    - iPod touch
    - Lightning cable
    - TRS – TRS cable 1m
    - TRS – TRS cable 15cm
    - TRS break out cable
    - TRS to RCA adapter
- two lightweight tripods

## Setup

### Find a suitable place for the equipment

Find a place for the equipment that fulfils the following criteria:

- The iPad camera has an unobstructed perpendicular view over the finish line
- Preferred position for the camera is on a vertical angle of between 20 and 45 degrees to the centre of the finish line
- Sturdy ground for the two tripods
- A place for the computer that is within 2m of the iPad and has a power outlet
- Preferred shaded area for the computer and monitor

### Assembly of the monitor

- Unfold the tripod and put it on sturdy ground
- Make sure all the screws are tight
- Take the tripod adapter plate and make sure the red screw is backed out enough so that no thread is visible in the mounting hole
- Put the adapter plate on the spigot head of the tripod and tighten the red screw
- Loosen the black lever on the back and roughly adjust the plate to be parallel with the tripod so that the monitor will not interfere with any screws, etc., on the tripod when mounted. Also, ensure the spring-loaded latch is on the bottom of the adapter.
- Tighten the lever
- Take the monitor out of the bag and slide it into the mounting plate until the latch snaps close
- Connect the HDMI and power cable to the monitor
- Connect the power cable to an outlet; use the power board if needed
- Monitor assembly done

### Setup of the computer

- Locate Mac Mini, power cord, mouse, keyboard, keyboard cable and USB cable
- Put the computer on the table so that the HDMI cable from the monitor can reach and close enough to the select position of the iPad so that the USB cable can reach the iPad
- Connect the HDMI cable from the monitor to the HDMI socket on the Mac
- Connect the mouse and keyboard cable to the USB ports
- Connect the USB-C cable to any USB-C ports
- Connect the power cable to the Mac and a suitable power outlet; use the power board if needed
- Setup of Computer done

### Setup of the iPad

Two possible mounting options for the iPad:

1. Use the tripod
2. Use the Manfrotto superclamp and mount it to a sturdy frame.

- Locate iPad, blue Quad Lock adapter, medium extension

- For mounting option 1, locate the ball with tripod threads and the tripod
- For mounting option 2, locate the ball with the clamp adapter and the Manfrotto super clamp
- Open the extensions and insert the selected adapter ball into the side opposite the spring. Then, insert the quad lock adapter into the socket with the spring.
- Tighten the extension
- For mounting option 1:
  - Unfold the tripod and place it in the desired place
  - Tighten the screws of the tripod
  - Screw the ball adapter onto the threads on the top of the tripod
- For mounting option 2:
  - Find a suitable mounting place, e.g. a sturdy window frame, a steal beam, a pipe, etc.
  - Open up the clamp
  - Insert “flat surface adapter” if clamping to a flat surface. Leave out of clamping to a pipe
  - Mount clamp to desired mounting place and tighten
  - Back up small screw for the spigot until no threads are visible in the hole
  - Depress the button on the side and insert the ball adapter. Make sure the flat side of the brass barrel faces the screw
  - Tighten the screw so that the ball can not move
- Clip the iPad into the Quad lock adapter and make sure it is in portrait orientation
- Remove the cover from the iPad
- Plug the USB-C cable into the connector at the bottom

### Power up the system

- Adjust the monitor for the ergonomic work environment
- Switch on the monitor
- Switch on the Mac
- Unlock the iPad, code: 996033

### Get the system ready

- Log into the Mac:
  - User: Regatta
  - Password: !regatta
- Start SprintTimer app on the Mac
- Select Start Sender
- Make sure the following settings are set under Start Setup:
  - Start Sender Mode: Direct
  - Start Mode: Starter
  - Setup – Start Clock: Hand
  - Setup – Start on Release
  - Everything else at default
- Make sure the following settings are set under Record Setup:
  - Remote recording: On
  - Multiple devices: Off
- Start SprintTimer app on the iPad
- Select SprintTimer
- Make sure the following settings are set under Start Setup:
  - Start Mode: Start Sender

- Setup – Start Sender Mode: Direct
- The dialogue should show “Start Sender found”
- Press the button synchronize to synchronize Mac and iPad
- Wait until the message “Ready to tun” appears
- Press Done to go back
- Make sure the following settings are set under Recording Setup
  - Recording & Finish Mode: Video
  - Setup – Save image at All
  - Setup – Frames per second: 60
  - Setup – Start recording after 15
  - Setup – Auto finish: DropSS
  - Setup – HD video: On
- Back on the main screen, select preview
- Adjust the iPad so that the indicated line is in line with the finish line
- Use the zoom slider on the bottom so that the finish line fills most of the frame
- Press back
- Check if “READY TO RECEIVE START SIGNAL” is displayed on the screen; if not go to Start Setup and resynchronise the start sender
- On the Mac, check if the app says “Connected” in the left upper corner and the stopwatch button is lit up
- Ready to go

#### Capture a race

- Keep in mind: Start is on RELEASE of the mouse button
- Hoover over the start button
- As soon as “Are you ready” is heard over the radio, press and hold the mouse button on the stopwatch icon
- As soon as “GO” is heard over the radio, release the mouse button
- Cross-check on the iPad that the clock is running in the upper right corner
- The app on the computer shows a play button; this changes to a pause and stop button after 15 sec
- As soon as all boats have crossed the finish line, press the stop button
- Wait for 30-60sec for the video to be transferred from the iPad to the computer

#### Judge a race

- Go to Results -> “Video Finish” – Base Videos
- Select the one that aligns with the start time of the race; should be the top one
- If the video is not there yet, click the done button on the left top corner, wait another 30-60sec and repeat the selection
- Video opens in preview mode
- Use the scrollbar on the bottom to align the line on the screen with the front of the boat; the time will be displayed at the top right corner; mark down the time on the race draw.
- Rinse and repeat for all boats in the race
- When finished, click done on the bottom, done on the next page, back on the last one, and you should be back at the stopwatch screen to start the next race.