# Initial Setup

1. **Power** on Laparoscopy Tower
2. **Power** on Tracking System
3. **Power** on Shingo’s laptop
4. **Place Task 1 in box**
   1. **Connect black** usb
   2. **Connect blue** cable to Maryland forceps
5. Open **CoolTerm**
   1. Go to OPTIONS
   2. Select PORT COM4
   3. Baudrate 115200
   4. Click OK
6. Open GitHub desktop
   1. Click fetch origin!
7. Open NDI Capture
   1. It should connect automatically.
   2. Click the open tool tracking utility button:
   3. In the NDI track Go to View > and make sure Polar Spherical Format is checked
   4. Wiggle a sensor and make sure the tracking is running
8. Make sure the footstool is in the right spot (just in front of the tape line)
9. Ensure the camera is in the right position – 15cm from the center screw of task 1
10. Setup guidance material
11. Make sure you have enough forms for the day
12. Get a coffee

# Procedure per participant

1. Create PARTICIPANT FOLDER
2. INTRODUCE the study
3. Show the TUTORIAL VIDEO

# TASK 1

1. Place TASK 1 in box
   1. Connect MARYLAND forceps
      1. Sensor 1 to port 1
      2. Sensor 2 (red flag) to port 2
   2. Reference sensor 1 (loose cable) to port 3
   3. Place Reference Sensor 1 in the reference sensor holder on the dominant hand side
   4. CONNECT the BLUE CABLE to the Marylands’ monopolar connector
   5. CONNECT the BLACK USB to the PC and the Arduino
   6. Go to COOLTERM.
   7. Press CTRL + R to start recording
   8. NAME the recording file “Participant 01, Task 1, SERIAL”, place it in the PARTICIPANT FOLDER
   9. Press CONNECT



* 1. On NDI Track, click
  2. In the record tracking window:
     1. Click Browse and create a new file in the participant folder, name it “Participant 01, Task 1, TRACKING”
     2. IMPORTANT: DOUBLE CHECK THAT THE FILE NAME IS UNIQUE, OR YOU WILL OVERWRITE STUDY DATA!
     3. Ensure all sensors are blue in the RECORD TOOLS box
     4. Click start recording

1. Guide the participant through the exercise. Remember to switch reference sensor position when switching hands.
2. Upon finishing:
   1. CoolTerm: Ctrl+Shift+R to stop recording
   2. NDI track: click close, then close again
   3. Unplug the USB and the blue cable
   4. Remove the reference sensors from the Task board
3. Remove the task board from the box

# TASK 2

1. Remove TASK 1, Place TASK 2 (Peg transfer)
2. Check Reference sensor (loose cable) to port 3
3. Place Reference Sensor 1 in the reference sensor holder on the dominant hand side
4. Place triangle on right red peg
5. On NDI Track, click 
   1. In the record tracking window:
   2. Click Browse and create a new file in the participant folder, name it “Participant 01, Task 2, TRACKING”
   3. IMPORTANT: DOUBLE CHECK THAT THE FILE NAME IS UNIQUE, OR YOU WILL OVERWRITE STUDY DATA!
   4. Ensure all sensors are blue in the RECORD TOOLS box
   5. Click start recording
6. Guide participant through task
7. Remember to switch reference sensor position when switching hands.
8. Upon finishing:
   1. Remove the reference sensor from the Task board
9. Remove TASK 2, place TASK 3

# TASK 3

1. Remove the reference sensor from port 3
2. Connect the atraumatic forceps
   * 1. Sensor 1 to port 3
     2. Sensor 2 (red flag) to port 4
3. Insert Maryland forceps on the dominant hand
4. Insert Atraumatic forceps on the non-dominant hand
5. On NDI Track, click 
   1. In the record tracking window:
   2. Click Browse and create a new file in the participant folder, name it “Participant 01, Task 3, TRACKING”
   3. IMPORTANT: DOUBLE CHECK THAT THE FILE NAME IS UNIQUE, OR YOU WILL OVERWRITE STUDY DATA!
   4. Ensure all sensors are blue in the RECORD TOOLS box
   5. Click start recording
6. Guide participant through task

# At the end of each day

1. Power down all equipment
2. Open Github desktop
   1. You should see all the changes to the data that were made that day
   2. In the summary box write “Day x Participant data”
   3. In the description box, write:
      1. Testing conducted by:
      2. Participants tested that day
      3. 3D / 2D / 4K
   4. If you are satisfied, click commit
   5. When the commit completes, click Push to origin to save all your changes and back them up to the cloud.
   6. Make sure this process completes!
3. Tidy up!
4. Turn off the lights
5. Go home, eat, have a beer, pat yourself on the back for being a great scientist.