**Buddy roll:**

Pre-Entrace (15 minutes before):

*In auxiliary testing room*

* Setup experiment computer (Linux laptop)
  + Power on (if not already)
  + Plug in joystick
  + Open Matlab by typing ptb3-matlab in a terminal
  + Navigate to /home/ntblab/Documents/MATLAB/vma\_recall\_BIC

**Operator roll:**

Entrance (15 minutes before participant arrival):

*In console room*

* Setup experiment computer (Linux rack-mount)
  + Power on (if not already)
  + Webcam (Epiphan) USB – wait to see LED turn Blue
  + Switch Window’s rack-mount Display Port to the linux rack-mount
  + Set Linux and Windows displays to screens on wall using Crestron
  + Pair Mouse and Keyboard 1 to Linux computer (Keyboard 1 receives scanner triggers so it MUSY be Keyboard 1 that is paired to Linux)
* Setup display profile
  + Open Matlab by typing ptb3-matlab in a terminal
  + In Matlab: enter command: XOrgSelector; select option 1 (for dual screen).
  + Exit Matlab
  + Log out of NTBlab; log back in.
  + Using Crestron, set the Windows computer screen to display on the projector.
  + Check that the projector is on and showing a black screen that displays the cursor
* Start camera display
  + Open Matlab again (ptb3-matlab) & navigate to: Desktop/NTBLab/huberdeau/vma\_retention
  + Enter: scanner\_cam\_test1
  + Using Crestron, set the scanner bore camera to display on the large screen in the scanner room.

*In scanner room*

* Setup Camera
  + Move camera to front of scanner and place on counter for easy access later.
  + Rudimentary focus adjust
  + Retrieve the tracker hardware from the cabinets in the back of the scanner and bring them to the front for easy access later.
  + Install 64-channel head coil base. Have top-part ready

*In console room*

* Prep subject and enter info
  + Consent (if not done)
  + De-metal and screening
  + Scanner console info (height, weight, etc.)
  + Instructions reiterated.
  + Shoes off
* Camera testing
  + In Matlab, enter scanner\_cam\_test\_3 (this will allow you to test tracking once the subject is in the scanner)

*In scanner room*

* Subject setup
  + Earplugs
  + Give subject the tracker glove.
  + Lie subject down
  + Provide subject emergency squeeze ball
  + Give subject earphones and head padding.
  + Place tracker surface over subject and adjust for comfort
  + Iso-center subject
  + Install head coil top.
  + Enter subject into bore
* Camera testing
  + Have subject test tracker
  + Watch on scanner room display for if the camera has the tracker in it’s field of view

*In console room*

* Camera setup
  + In Matlab, run calibrate\_rotation.m to calibration the camera:
  + Re-Run camera tracking
  + Ask subject if tracking “feels natural & looks as expected”
    - If not, adjust camera or re-calibrate as necessary

*In console room*

* Initiation runs
  + Run Auto align scout
  + Run T1 mprage structural scan
* Functional runs
  + On the experiment computer (linus laptop), in matlab, run:
    - [a, b, c] = retention\_TR\_experiment\_v5\_tracker;
  + Start Functional scan (324 TRs @ 1.5sec)
  + \*\*Repeat the above two steps 5x, but change block number sequentially \*\*
* T2 scan – align so that motor cortical areas and cerebellum, if possible, are captured
* Spin echo 1
* Spin echo 2