Animal study:

Materials:
computational cart:
- EM station
- PIM module
- USB splitter
- computer
- computer monitor facing out
- computer charger
- frame grabber
- mouse
- keyboard
- supply boxes

in room:
- pullback device
- pullback device power chord
- dash monitor cable
- EM emitter
- EM emitter stand
- IVUS machine
- camera
- camera stand / iphone stand

supplies:
- printed protocol
- IVUS + EM catheters
- steerable EM catheter
- steerable catheter
- computer monitor
- guiding catheters
- dryseal
- dilators
- hemostatic valve
- guidewires
- contrast agent
- puffing catheters
- surgical drapes
- ECG electrodes
- syringes for contrast agent injection

electronics setup:
- setup power strip
- setup pullback device on tripod
- connect ECG electrodes to dash monitor
- connect dash monitor to pullback device
- power on IVUS
- set up EM emitter stand, power on EM station

- plug in computer charger and usb splitter
- setup camera

computer setup:
- ensure correct calibration loaded
- ensure correct ML model loaded
- presave data directories on computer
- activate frame grabber, ensure aortascope working

animal access:
- introducer kit
- place dilator sheath + cannula
- remove dilator

procedure:
- feed wire up to left ventricle under fluoro guidance - inject contrast agent while navigating aortic arch and again to confirm left ventricle – use guiding catheter if needed (use 200 cm guidewire)
- feed IVUS catheter into LV, recording images as you go up and go across valve
- pullback from LV to end of aortic arch recording data – repeat x2
- return to beginning of ascending aorta, pullback to distal abdominal aorta recording data – repeat 3x

side branch navigation:
- exchange IVUS for steering catheter
- load previous TSDF near lumen
- navigate into side branches taking note of time
- repeat under fluoro, use contrast where necessary