SnakeRaven Demo Commands:

Basic Raven II start up Procedure

1. On the bottom Raven II computer stack, turn on 48V power, pause for about 5 seconds and turn on system power and toggle the power button in the 4th level stack.
2. Login password is RavenII
3. Navigate to terminal or short-key: **ctrl-alt-t**
4. Enter the start-up commands

Start-up commands in terminal:	**Description**
`cd raven_18_05`	Go to Raven II source code repository version 2018 May
`catkin_make`	Compile all the code in that repository
`source devel/setup.bash`	(optional/unnecessary command) establishes the setup file
`roslaunch raven_2 raven_2.launch`	Runs the Raven II main code

Raven II terminal interactions

1. Press the E-stop, release and press the silver button is a reset procedure that changes the current function mode of the Raven II.
2. Initially, Raven runs the homing procedure (make sure the workspace is clear) but once that is complete the mode can be changed
3. Change mode using **m** key and press the mode number.
4. SnakeRaven uses mode **2 – joint velocity control**. Press enter and reset.
5. To turn off, press red E-stop and press **ctrl-c** in the terminal

SnakeRaven nodes start up Procedure

1. In a new terminal run the following commands, you can use **tab** which will autofill the command
2. Each node runs in each terminal. In the controller node, press keys to interact with menus.
3. When running **snake_raven_controller** press **enter** to start and the first menu option press **0** to start the calibration sequence (which takes the right tool to the perpendicular pose and moves the left tool aside.
4. The menu offers several control modes that are numbered. To exit a mode use button **k** to kill
5. Turning off use mode '3' which relaxes the snake arm and resets robot for some time. Press **ctrl-c** to end

Start-up commands in terminal:	**Description**
`rosrun snake_raven_controller talkersnakeraven`	Runs control node has menu
`rosparam set cv_camera/device_id 1`	Change which camera (e.g. 1) is attached to the robot
`rosrun cv_camera cv_camera_node`	Runs endoscopic camera node
`rosrun image_view image_view image:=/cv_camera/image_raw`	Views endoscopic camera feed
`rosrun vision_system_snakeraven imageprocessor`	Runs the vision processing node