**ArrayBot Controls**

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| **Group** | **Control** | **Action** |
| System | Initialize  Stow | Home all axes, move each to base position  Move each axis safely to base position |
| Whisker  Operate  Buttons | Joy-Back  Joy-Front  Joy-Left  Joy-Right  Joy-Up  Joy-Down  Goto Up  Goto Down  Goto Pickup  Goto Attach  Set Up  Set Down  Set Pickup  Set Attach | “Joystick” control of camera gantry  Raise carriage from water surface  Lower carriage to whisker-water contact  Move to ribbon head pickup area  Move to ribbon head attachment area  Set carriage-up Z position  Set carriage-down Z position  Set pickup point XY position  Set attach point XY position |
| Whisker  Setup  Params | Joy-XY-Velocity  Joy-XY-Acceleration  Joy-Z-Velocity  Joy-Z-Acceleration |  |
| Coverslip  Operate  Buttons | Joy-Back  Joy-Front  Joy-Left  Joy-Right  Joy-Up  Joy-Down  Goto Load Point  Goto Insert Point  Insert Cslip  Withdraw Cslip  Pick Up  Drop  Set Load  Set Insert Start  Set Insert Finish | “Joystick” control of coverslip slides  Move to coverslip load/unload position  Move to position to start coverslip insertion  Insert coverslip  Withdraw coverslip  Open vacuum chuck valve  Close vacuum chuck valve  Set coverslip load XYZ position  Set insert start XYZ position  Set insert finish XYZ position |
| Coverslip  Setup  Params | Joy-XY-Velocity  Joy-XY-Acceleration  Joy-Z-Velocity  Joy-Z-Acceleration  Insert Velocity  Withdraw Velocity |  |
| Video  Controls | Auto Grayscale  Fix Gain/Offset  Adjust Gain  Adjust Offset  Grab  Snap  Save |  |