**Experiment with PCBC for analysis:**

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| --- | --- |
| Iteration=5  AIMU = 0.1  ADVL = 0.01  AUSBL=40  SigmaIMU=1  SigmaDVL = 20  SigmaUSBL = 0.1 |  |

|  |  |
| --- | --- |
| Iteration = 1  AIMU = 0.1  ADVL = 0.01  AUSBL=40  SigmaIMU=1  SigmaDVL = 20  SigmaUSBL = 0.1 |  |

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| --- | --- |
| iter=5;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=1;  ADVL=0.01;  sigmaDVL=20;  AUSBL=40;  sigmaUSBL=0.1; |  |

|  |  |
| --- | --- |
| iter=25;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=1;  ADVL=0.01;  sigmaDVL=20;  AUSBL=40;  sigmaUSBL=0.1; |  |

|  |  |
| --- | --- |
| iter=5;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=1;  ADVL=0.1;  sigmaDVL=20;  AUSBL=40;  sigmaUSBL=0.1; |  |

|  |  |
| --- | --- |
| iter=5;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=1;  ADVL=0.01;  sigmaDVL=30;  AUSBL=40;  sigmaUSBL=0.1; |  |

|  |  |
| --- | --- |
| iter=10;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=0.1;  ADVL=0.01;  sigmaDVL=20;  AUSBL=40;  sigmaUSBL=0.1; |  |

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| --- | --- |
| iter=10;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=0.2;  ADVL=0.1;  sigmaDVL=20;  AUSBL=40;  sigmaUSBL=0.1; |  |

|  |  |
| --- | --- |
| iter=10;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=20;  ADVL=0.1;  sigmaDVL=0.2;  AUSBL=40;  sigmaUSBL=0.1;  \*see IMU smooth behavior mA |  |

|  |  |
| --- | --- |
| iter=10;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=20;  ADVL=0.1;  sigmaDVL=10;  AUSBL=40;  sigmaUSBL=0.1; |  |

|  |  |
| --- | --- |
| iter=10;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=20;  ADVL=0.1;  sigmaDVL=20;  AUSBL=40;  sigmaUSBL=0.1; |  |

|  |  |
| --- | --- |
| iter=10;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=30;  ADVL=0.1;  sigmaDVL=0.2;  AUSBL=40;  sigmaUSBL=0.1; |  |

|  |  |
| --- | --- |
| iter=10;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=30;  ADVL=0.1;  sigmaDVL=2;  AUSBL=40;  sigmaUSBL=0.1; |  |

|  |  |
| --- | --- |
| iter=10;  #setting Input for inertial sensor and positioning  AIMU=1;  sigmaIMU=30;  ADVL=1;  sigmaDVL=20;  AUSBL=1;  sigmaUSBL=0.1; |  |

|  |  |
| --- | --- |
| iter=10;  #setting Input for inertial sensor and positioning  AIMU=1;  sigmaIMU=30;  ADVL=1;  sigmaDVL=2;  AUSBL=1;  sigmaUSBL=0.1; |  |

|  |  |
| --- | --- |
| iter=10;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=30;  ADVL=0.1;  sigmaDVL=2;  AUSBL=40;  sigmaUSBL=0.1; |  |
| iter=50;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=30;  ADVL=0.1;  sigmaDVL=2;  AUSBL=40;  sigmaUSBL=0.1; |  |

|  |  |
| --- | --- |
| iter=50;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=20;  ADVL=0.1;  sigmaDVL=5;  AUSBL=40;  sigmaUSBL=0.1; |  |

|  |  |
| --- | --- |
| iter=50;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=20;  ADVL=0.1;  sigmaDVL=10;  AUSBL=40;  sigmaUSBL=0.1; |  |

Now with usbl

|  |  |
| --- | --- |
| iter=50;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=20;  ADVL=0.1;  sigmaDVL=10;  AUSBL=40;  sigmaUSBL=5; |  |
| iter=50;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=20;  ADVL=0.1;  sigmaDVL=10;  AUSBL=40;  sigmaUSBL=0.2; |  |
| iter=40;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=20;  ADVL=0.1;  sigmaDVL=1;  AUSBL=40;  sigmaUSBL=0.2; |  |

|  |  |
| --- | --- |
| Usbl 100 itr  iter=40;  #setting Input for inertial sensor and positioning  AIMU=0.1;  sigmaIMU=20;  ADVL=0.1;  sigmaDVL=2;  AUSBL=40;  sigmaUSBL=0.2; |  |