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# Parameter Source: Diffractometer

Date: Wednesday, December 10, 2014 6:13 PM

## **System Parameters:**

Name	Value
TaskExecutionSetup	18
RequiredAxes	0
DisplayAxes	63
ExternalSyncFrequency	20
SoftwareExternalFaultInput	0

/Calibration	
Name	Value
CalibrationFile1D	
CalibrationFile2D	

/Communication/ASCII	
Name	Value
CommandSetup	65540
CommandTerminatingCharacter	10
CommandSuccessCharacter	37
CommandInvalidCharacter	33
CommandFaultCharacter	35
CommandTimeout	10000
CommandTimeoutCharacter	36

/Communication/Ethernet Sockets	
Name	Value
Socket2RemoteIPAddress	0
Socket2Port	8000
Socket2Setup	1
Socket2TransmissionSize	0
Socket3RemoteIPAddress	0
Socket3Port	8001
Socket3Setup	1
Socket3TransmissionSize	0
Socket2Timeout	2147483647
Socket3Timeout	2147483647

/Communication/GPIB	
Name	Value
GpibTerminatingCharacter	10
GpibPrimaryAddress	1
GpibParallelResponse	1

/Communication/Modbus Master	
Name	Value
ModbusMasterSlaveIPAddress	0
ModbusMasterSlavePort	502
ModbusMasterSlaveID	0
ModbusMasterInputWords	0
ModbusMasterOutputWords	0
ModbusMasterInputBits	0
ModbusMasterOutputBits	0
ModbusMasterSetup	0
ModbusMasterVirtualInputs	0
ModbusMasterVirtualOutputs	0
ModbusMasterOutputWordsSections	0
ModbusMasterOutputBitsSections	0
ModbusMasterRWReadOffset	0
ModbusMasterInputWordsOffset	0
ModbusMasterOutputWordsOffset	0
ModbusMasterInputBitsOffset	0
ModbusMasterOutputBitsOffset	0
ModbusMasterStatusWordsOffset	0
ModbusMasterStatusBitsOffset	0
ModbusMasterVirtualInputsOffset	0
ModbusMasterVirtualOutputsOffset	0
ModbusMasterRWWriteOffset	0
ModbusMasterFunctions	12139

/Communication/Modbus Slave	
Name	Value

/Communication/Modbus Slave	
Name	Value
ModbusMasterSlaveType	0
ModbusSlaveUnitID	1
ModbusSlaveInputWords	0
ModbusSlaveOutputWords	0
ModbusSlaveInputBits	0
ModbusSlaveOutputBits	0
ModbusSlaveInputWordsOffset	0
ModbusSlaveOutputWordsOffset	0
ModbusSlaveInputBitsOffset	0
ModbusSlaveOutputBitsOffset	0
ModbusSlaveRWReadOffset	0
ModbusSlaveRWWriteOffset	0

/Communication/RS-232	
Name	Value
SerialPort0XonCharacter	26
SerialPort0XoffCharacter	27
SerialPort0BaudRate	9600
SerialPort0Setup	3
SerialPort1XonCharacter	26
SerialPort1XoffCharacter	27
SerialPort1BaudRate	9600
SerialPort1Setup	3

/Joystick	
Name	Value
JoystickInput1MinVoltage	0
JoystickInput1MaxVoltage	5
JoystickInput1Deadband	0.1
JoystickInput0MinVoltage	0
JoystickInput0MaxVoltage	5
JoystickInput0Deadband	0.1
JoystickSetup	0

/Memory Allocation	
Name	Value
DataCollectionPoints	8000
PrintBufferSize	256
GlobalIntegers	256
GlobalDoubles	4096
GlobalStrings	32

/User	
Name	Value
UserInteger0	0
UserInteger1	0
UserDouble0	0
UserDouble1	0
UserString0	OK: Timer period is 0.024 s.
UserString1	

#### **Axis Parameters:**

Name	Value							
	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)		
AxisType	0	0	0	0	0	0		
RolloverCounts	0	0	0	0	0	0		
GantryMasterAxis	-1	-1	-1	-1	-1	-1		
BacklashDistance	0	0	0	0	0	0		
GantrySetup	0	0	0	0	0	0		
RolloverMode	0	0	0	0	0	0		
AxisName	X	Y	Z	PHI	PumpA	PumpB		

/Autofocus Loop									
N	Value								
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)			
AutofocusInput	0	0	0	0	0	0			
AutofocusTarget	0	0	0	0	0	0			
AutofocusDeadband	0	0	0	0	0	0			
AutofocusGainKi	0	0	0	0	0	0			
AutofocusGainKp	0	0	0	0	0	0			
AutofocusLimitLow	0	0	0	0	0	0			
AutofocusLimitHigh	0	0	0	0	0	0			
AutofocusSpeedClamp	0	0	0	0	0	0			
AutofocusHoldInput	-1	-1	-1	-1	-1	-1			
AutofocusSetup	0	0	0	0	0	0			
AutofocusInitialRampTime	0	0	0	0	0	0			
AutofocusGainKi2	0	0	0	0	0	0			

/Current Loop										
NT.	Value	Value								
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)				
AmplifierDeadtime	3	3	3	3	3	3				
CurrentGainKi	11000	11000	11000	11000	11000	11000				
CurrentGainKp	37000	37000	37000	37000	37000	37000				
CurrentOffsetA	0	0	0	0	0	0				
CurrentOffsetB	0	0	0	0	0	0				

/Dynamic Controls Toolbox/Threshold Gain Scheduling										
Name	Value	Value								
	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)				
ThresholdScheduleSetup	0	0	0	0	0	0				
ThresholdRegion2High	0	0	7	0	0	0				
ThresholdRegion2Low	0	0	7	0	0	0				
ThresholdRegion3GainKpos	0	0	100	0	0	0				
ThresholdRegion3GainKp	0	0	180000	0	0	0				
ThresholdRegion3GainKi	0	0	10000	0	0	0				
ThresholdRegion3GainKpi	0	0	0	0	0	0				
ThresholdRegion4High	0	0	0	0	0	0				
ThresholdRegion4Low	0	0	0	0	0	0				
ThresholdRegion5GainKpos	0	0	100	0	0	0				
ThresholdRegion5GainKp	0	0	180000	0	0	0				
ThresholdRegion5GainKi	0	0	0	0	0	0				
ThresholdRegion5GainKpi	0	0	0	0	0	0				

/Dynamic Controls Toolbox/Dynamic Gain Scheduling								
Name	Value							
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)		
DynamicScheduleSetup	0	0	0	0	0	0		
DynamicGainKposScale	1	1	1	1	1	1		
DynamicGainKpScale	1	1	1	1	1	1		
DynamicGainKiScale	1	1	1	1	1	1		

/Dynamic Controls Too	olbox/Harmo	nic Cancella	tion			
N	Value					
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)
HarmonicCancellation0Type	0	0	1	0	0	0
HarmonicCancellation0Period	0	0	6600	0	0	0
HarmonicCancellation0Gain	0	0	0.1	0	0	0
HarmonicCancellation0Phase	0	0	0	0	0	0
HarmonicCancellation1Type	0	0	0	0	0	0
HarmonicCancellation1Period	0	0	0	0	0	0
HarmonicCancellation1Gain	0	0	0	0	0	0

/Dynamic Controls Toolbox/Harmonic Cancellation									
Name	Value								
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)			
HarmonicCancellation1Phase	0	0	0	0	0	0			
HarmonicCancellation2Type	0	0	0	0	0	0			
HarmonicCancellation2Period	0	0	0	0	0	0			
HarmonicCancellation2Gain	0	0	0	0	0	0			
HarmonicCancellation2Phase	0	0	0	0	0	0			
HarmonicCancellation3Type	0	0	0	0	0	0			
HarmonicCancellation3Period	0	0	0	0	0	0			
HarmonicCancellation3Gain	0	0	0	0	0	0			
HarmonicCancellation3Phase	0	0	0	0	0	0			
HarmonicCancellation4Type	0	0	0	0	0	0			
HarmonicCancellation4Period	0	0	0	0	0	0			
HarmonicCancellation4Gain	0	0	0	0	0	0			
HarmonicCancellation4Phase	0	0	0	0	0	0			
HarmonicCancellationSetup	0	0	0	0	0	0			

Name	Value					
	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB
CommandShaperSetup	0	0	0	0	0	0
CommandShaperTime00	0	0	0	0	0	0
CommandShaperTime01	0	0	0.0086	0	0	0
CommandShaperTime02	0	0	0.0172	0	0	0
CommandShaperTime03	0	0	0	0	0	0
CommandShaperTime04	0	0	0	0	0	0
CommandShaperTime05	0	0	0	0	0	0
CommandShaperTime06	0	0	0	0	0	0
CommandShaperTime07	0	0	0	0	0	0
CommandShaperTime08	0	0	0	0	0	0
CommandShaperTime09	0	0	0	0	0	0
CommandShaperTime10	0	0	0	0	0	0
CommandShaperTime11	0	0	0	0	0	0
CommandShaperTime12	0	0	0	0	0	0
CommandShaperTime13	0	0	0	0	0	0
CommandShaperTime14	0	0	0	0	0	0
CommandShaperTime15	0	0	0	0	0	0
CommandShaperCoeff00	0	0	0.26595261348777666	0	0	0
CommandShaperCoeff01	0	0	0.49950664708403236	0	0	0
CommandShaperCoeff02	0	0	0.23454073942819098	0	0	0
CommandShaperCoeff03	0	0	0	0	0	0
CommandShaperCoeff04	0	0	0	0	0	0
CommandShaperCoeff05	0	0	0	0	0	0
CommandShaperCoeff06	0	0	0	0	0	0
CommandShaperCoeff07	0	0	0	0	0	0
CommandShaperCoeff08	0	0	0	0	0	0
CommandShaperCoeff09	0	0	0	0	0	0
CommandShaperCoeff10	0	0	0	0	0	0
CommandShaperCoeff11	0	0	0	0	0	0
CommandShaperCoeff12	0	0	0	0	0	0
CommandShaperCoeff13	0	0	0	0	0	0
CommandShaperCoeff14	0	0	0	0	0	0
CommandShaperCoeff15	0	0	0	0	0	0
CommandShaper0Type	0	0	1	0	0	0
CommandShaper0Frequency	25	25	58	25	25	25
CommandShaper0Damping	0.1000000000000000000000000000000000000	0.1000000000000000000000000000000000000	0.02	0.1000000000000000000000000000000000000	0.1000000000000000000000000000000000000	0.10000
CommandShaper1Type	0	0	0	0	0	0
CommandShaper1Frequency	25	25	25	25	25	25
CommandShaper1Damping	0.1000000000000000000000000000000000000	0.1000000000000000000000000000000000000	0.1	0.1000000000000000000000000000000000000	0.1000000000000000000000000000000000000	0.10000

/Enhanced Throughput Module									
N	Value	Value							
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)			
EnhancedThroughputChannel	0	0	0	0	0	0			
EnhancedThroughputGain	0	0	0	0	0	0			
EnhancedThroughputCurrentClamp	0.5	0.5	0.5	0.5	0.5	0.5			

/Fault										
Name	Value	Value								
	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)				
FaultMask	9833470	9833470	9833470	9701887	9701887	9701887				
FaultMaskDisable	10357699	10357699	10357699	10357699	10357699	10357699				
FaultMaskDecel	18222142	18222142	18222142	18222142	18222142	18222142				

/Fault								
Name	Value							
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)		
FaultMaskDisableDelay	0	0	0	0	0	0		
FaultAbortAxes	3	3	3	3	3	3		
FaultSetup	34	34	34	34	34	34		

/Fault/Inputs									
Name	Value								
	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)			
ESTOPFaultInput	-2	-2	-2	-2	-2	-2			
ExternalFaultDigitalInput	-1	-1	-1	-1	-1	-1			
ExternalFaultAnalogInput	-1	-1	-1	-1	-1	-1			

/Fault/Outputs										
Name	Value	Value								
	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)				
FaultMaskOutput	0	0	0	0	0	0				
FaultOutputSetup	0	0	0	0	0	0				
FaultOutputState	0	0	0	0	0	0				

/Fault/Thresholds									
NT.	Value								
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)			
PositionErrorThreshold	0.25	0.25	0.25	0.25	0.25	0.25			
AverageCurrentThreshold	2.93742013	2.93742013	2.93742013	2.93742013	2.93742013	2.93742013			
AverageCurrentTime	4000	4000	4000	4000	4000	4000			
VelocityCommandThreshold	220	220	220	720.00000000000011	720.00000000000011	720.000000000000011			
VelocityErrorThreshold	10	10	10	10	10	10			
ExternalFaultThreshold	0	0	0	0	0	0			
MarkerSearchThreshold	0	0	0	0	0	0			
VelocityCommandThresholdBeforeHome	30	30	30	30	30	30			

/Feedback									
Name	Value								
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)			
PositionFeedbackType	1	1	1	0	0	0			
PositionFeedbackChannel	0	0	0	0	0	0			
VelocityFeedbackType	0	0	0	0	0	0			
VelocityFeedbackChannel	0	0	0	0	0	0			
FeedbackSetup	1536	1536	1536	0	0	0			
ExternalVelocityAverageTime	1	1	1	1	1	1			

/Feedback/EnDat Encoder									
Name	Value								
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)			
EnDatEncoderSetup	3	3	3	3	3	3			
EnDatEncoderResolution	13	13	13	13	13	13			
EnDatEncoderTurns	1	1	1	1	1	1			
EnDatEncoderIncrementalResolution	512	512	512	512	512	512			

/Feedback/Multiplier									
	Value								
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)			
EncoderMultiplicationFactor	20000	20000	20000	20000	20000	20000			
EncoderSineGain	150	150	150	150	150	150			
EncoderSineOffset	0	0	0	0	0	0			
EncoderCosineGain	150	150	150	150	150	150			
EncoderCosineOffset	0	0	0	0	0	0			
EncoderPhase	128	128	128	128	128	128			
EmulatedQuadratureDivider	1	1	1	1	1	1			
EncoderMultiplierSetup	3	3	3	3	3	3			
EmulatedQuadratureChannel	0	0	0	0	0	0			

/Feedback/Resolute Encod	er								
Name	Value								
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)			
ResoluteEncoderSetup	1	1	1	1	1	1			
ResoluteEncoderResolution	32	32	32	32	32	32			

/Feedback/Resolute Enc	oder								
Name	Value								
	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)			
ResoluteEncoderUserResolution	32	32	32	32	32	32			

/Feedback/Resolver									
Name	Value								
	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)			
ResolverReferenceGain	0	0	0	0	0	0			
ResolverSetup	0	0	0	0	0	0			
ResolverReferencePhase	90	90	90	90	90	90			
ResolverCoarseChannel	0	0	0	0	0	0			
ResolverFeedbackRatio	0	0	0	0	0	0			
ResolverFeedbackOffset	0	0	0	0	0	0			

/I/O										
Name	Value	Value								
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)				
IOSetup	0	4	4	4	4	4				
EncoderDivider	0	0	0	0	0	0				
SSINet1Setup	1	1	1	1	1	1				
SSINet2Setup	1	1	1	1	1	1				

Name	Value								
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)			
Analog0Filter0CoeffN0	0.00145885686	0.00145885686	0.00145885686	0.00145885686	0.00145885686	0.00145885686			
Analog0Filter0CoeffN1	0.00291771372	0.00291771372	0.00291771372	0.00291771372	0.00291771372	0.00291771372			
Analog0Filter0CoeffN2	0.00145885686	0.00145885686	0.00145885686	0.00145885686	0.00145885686	0.00145885686			
Analog0Filter0CoeffD1	-1.88909	-1.88909	-1.88909	-1.88909	-1.88909	-1.88909			
Analog0Filter0CoeffD2	0.8949254	0.8949254	0.8949254	0.8949254	0.8949254	0.8949254			
Analog0Filter1CoeffN0	1	1	1	1	1	1			
Analog0Filter1CoeffN1	0	0	0	0	0	0			
Analog0Filter1CoeffN2	0	0	0	0	0	0			
Analog0Filter1CoeffD1	0	0	0	0	0	0			
Analog0Filter1CoeffD2	0	0	0	0	0	0			
Analog1Filter0CoeffN0	0.00145885686	0.00145885686	0.00145885686	0.00145885686	0.00145885686	0.00145885680			
Analog1Filter0CoeffN1	0.00291771372	0.00291771372	0.00291771372	0.00291771372	0.00291771372	0.00291771372			
Analog1Filter0CoeffN2	0.00145885686	0.00145885686	0.00145885686	0.00145885686	0.00145885686	0.00145885680			
Analog1Filter0CoeffD1	-1.88909	-1.88909	-1.88909	-1.88909	-1.88909	-1.88909			
Analog1Filter0CoeffD2	0.8949254	0.8949254	0.8949254	0.8949254	0.8949254	0.8949254			
Analog1Filter1CoeffN0	1	1	1	1	1	1			
Analog1Filter1CoeffN1	0	0	0	0	0	0			
Analog1Filter1CoeffN2	0	0	0	0	0	0			
Analog1Filter1CoeffD1	0	0	0	0	0	0			
Analog1Filter1CoeffD2	0	0	0	0	0	0			
AnalogFilterSetup	85	85	85	85	85	85			

/I/O/Brake									
N	Value								
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)			
EnableBrakeControl	0	0	0	0	0	0			
BrakeOutput	-1	-1	-1	-1	-1	-1			
BrakeDisableDelay	0	0	0	0	0	0			
BrakeEnableDelay	0	0	0	0	0	0			

/Limits									
NI	Value								
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)			
SoftwareLimitLow	-80.1	-80.1	-80.1	-80.1	-80.1	-80.1			
SoftwareLimitHigh	80.1	80.1	80.1	80.1	80.1	80.1			
LimitDecelDistance	4.5	4.5	4.5	4.5	4.5	4.5			
LimitDebounceTime	100	100	100	100	100	100			
EndOfTravelLimitSetup	6	6	6	0	0	0			
LimitDebounceDistance	1	1	1	1	1	1			
SoftwareLimitSetup	1	1	1	1	1	1			

/Motion							
Name Value							
Name	X (0)	Y (1)	Z(2)	PHI (3)	PumpA (4)	PumpB (5)	
ReverseMotionDirection	0	0	0	0	0	0	

r		r			
/	M	n	tı	n	n

Name	Value	Value									
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)					
MaxJogDistance	2	2	2	360.0000000000000006	90	90					
DefaultSpeed	250	250	250	720.00000000000011	90	90					
DefaultRampRate	4000	7000	14000	8000	8000	8000					
AbortDecelRate	1000	1000	40000	8000	8000	8000					
MaxJogSpeed	200	200	200	720.000000000000011	90	90					
JoystickLowSpeed	6.12266666666666762	6.1226666666666771	6.1226666666666771	6.1226666666666771	6.1226666666666771	6.12266666666667					
JoystickHighSpeed	13.1200000000000012	13.1200000000000012	13.1200000000000012	13.120000000000001	13.120000000000001	13.12000000000000					
DefaultRampMode	0	0	0	0	0	0					
DefaultRampTime	100	100	100	100	0.01	100					
DefaultRampDistance	5	5	5	5	5	5					

/Motion/Gear/Cam									
NT.	Value								
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)			
GearCamSource	1	1	1	1	1	1			
GearCamIndex	0	0	0	0	0	0			
GearCamScaleFactor	1	1	1	1	1	1			
GearCamAnalogDeadband	0.05	0.05	0.05	0.05	0.05	0.05			

/Motion/Home										
Name	Value	Value								
	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)				
HomeType	1	1	1	1	1	1				
HomeSetup	0	0	0	0	0	0				
HomeSpeed	25.4	25.4	25.4	25.4	25.4	25.4				
HomeOffset	0	0	0	0	0	0				
HomeRampRate	2000	2000	2000	254	254	254				
HomePositionSet	0	0	0	0	0	0				

### /Motion/In Position

Name	Value					
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5
InPositionDistance	4.999999999999979E-	4.999999999999979E-	4.999999999999979E-	4.99999999999996E-	4.99999999999996E-	4.9999999
IIIFOSITIOIIDIStance	06	06	06	06	06	06
InPositionTime	0	0	0	0	0	0
InPosition2Distance	0.01	0.01	0.01	0.009999999999999985	0.009999999999999985	0.00999999
InPosition2Time	0	0	0	0	0	0

/Motor									
Name	Value								
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)			
MaxCurrentClamp	5	5	5	5	5	5			
MotorType	0	0	0	3	3	3			
CyclesPerRev	1	1	1	50	50	50			
CountsPerRev	13200	13200	13200	200	200	200			
CommutationOffset	10	10	10	0	0	0			
AutoMsetTime	1000	1000	1000	1000	1000	1000			
AutoMsetCurrent	1	1	1	1	1	1			

/Motor/Stepper									
Name	Value								
	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)			
StepperResolution	0	0	0	200	200	200			
StepperRunningCurrent	0	0	0	0.8	2	2			
StepperHoldingCurrent	0	0	0	0.1	0.5	0.1			
StepperVerificationSpeed	0	0	0	0	0	0			
StepperRunningCurrentDelay	500	500	500	500	12	500			

/Servo Loop						
Name						
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)
ServoRate	2	2	5	2	2	2
ServoSetup	5	5	5	5	5	5

/Servo Loop/Amp Protecti	on					
N	Value					
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)

/Servo Loop/Amp Protection									
N	Value								
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)			
LinearAmpMaxPower	200	200	200	200	200	200			
LinearAmpDeratingFactor	1.52	1.52	1.52	1.52	1.52	1.52			
LinearAmpBusVoltage	24	24	24	24	24	24			
MotorResistance	5.2	5.2	5.2	5.2	5.2	5.2			
MotorBackEMFConstant	4.8	4.8	4.8	4.8	4.8	4.8			

/Servo Loop/Gains								
Name	Value							
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)		
GainKpos	10	237	100	86.1	86.1	86.1		
GainKi	5630	4200	10000	12.13	12.13	12.13		
GainKp	100000	237000	1780000	577.2	577.2	577.2		
GainVff	750	562	2371	0	0	0		
GainAff	316000	237000	56200	752.1	752.1	752.1		
GainKv	1	1	1	1	1	1		
GainKpi	0	0	0	0	0	0		
StaticFrictionCompensation	0	0	0	0	0	0		
GainPff	0	0	0	0	0	0		
GainKd1	0	0	0	0	0	0		
GainKp1	0	0	0	0	0	0		

/Servo Loop/Filters							
Name	Value						
Name	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)	
ServoFilter0CoeffN0	0.226154	0.226154	0.226154	0.226154	0.226154	0.226154	
ServoFilter0CoeffN1	0.452307	0.452307	0.452307	0.452307	0.452307	0.452307	
ServoFilter0CoeffN2	0.226154	0.226154	0.226154	0.226154	0.226154	0.226154	
ServoFilter0CoeffD1	-0.280946	-0.280946	-0.280946	-0.280946	-0.280946	-0.280946	
ServoFilter0CoeffD2	0.185561	0.185561	0.185561	0.185561	0.185561	0.185561	
ServoFilter1CoeffN0	1	1	1	1	1	1	
ServoFilter1CoeffN1	0	0	0	0	0	0	
ServoFilter1CoeffN2	0	0	0	0	0	0	
ServoFilter1CoeffD1	0	0	0	0	0	0	
ServoFilter1CoeffD2	0	0	0	0	0	0	
ServoFilter2CoeffN0	1	1	1	1	1	1	
ServoFilter2CoeffN1	0	0	0	0	0	0	
ServoFilter2CoeffN2	0	0	0	0	0	0	
ServoFilter2CoeffD1	0	0	0	0	0	0	
ServoFilter2CoeffD2	0	0	0	0	0	0	
ServoFilter3CoeffN0	1	1	1	1	1	1	
ServoFilter3CoeffN1	0	0	0	0	0	0	
ServoFilter3CoeffN2	0	0	0	0	0	0	
ServoFilter3CoeffD1	0	0	0	0	0	0	
ServoFilter3CoeffD2	0	0	0	0	0	0	
ServoFilterSetup	1	1	1	1	1	1	
ServoFilter4CoeffN0	1	1	1	1	1	1	
ServoFilter4CoeffN1	0	0	0	0	0	0	
ServoFilter4CoeffN2	0	0	0	0	0	0	
ServoFilter4CoeffD1	0	0	0	0	0	0	
ServoFilter4CoeffD2	0	0	0	0	0	0	
ServoFilter5CoeffN0	1	1	1	1	1	1	
ServoFilter5CoeffN1	0	0	0	0	0	0	
ServoFilter5CoeffN2	0	0	0	0	0	0	
ServoFilter5CoeffD1	0	0	0	0	0	0	
ServoFilter5CoeffD2	0	0	0	0	0	0	
ServoFilter6CoeffN0	1	1	1	1	1	1	
ServoFilter6CoeffN1	0	0	0	0	0	0	
ServoFilter6CoeffN2	0	0	0	0	0	0	
ServoFilter6CoeffD1	0	0	0	0	0	0	
ServoFilter6CoeffD2	0	0	0	0	0	0	
ServoFilter7CoeffN0	1	1	1	1	1	1	
ServoFilter7CoeffN1	0	0	0	0	0	0	
ServoFilter7CoeffN2	0	0	0	0	0	0	
ServoFilter7CoeffD1	0	0	0	0	0	0	
ServoFilter7CoeffD2	0	0	0	0	0	0	

/Units								
Name	Value							
	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)		
CountsPerUnit	1000	1000	1000	0.55555555555555	0.55555555555555	0.5555555555555		
DecimalPlaces	6	6	6	6	6	6		

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/Units								
Name	Value							
	X (0)	Y (1)	Z (2)	PHI (3)	PumpA (4)	PumpB (5)		
UnitsName	mm	mm	mm	deg	deg	deg		

## **Task Parameters:**

Name	Value							
Name	Task 0	Task 1	Task 2	Task 3	Task 4	Task 5		
AutoRunProgram								
TaskErrorAbortAxes	1023	1023	1023	1023	1023	1023		
TaskTerminationAxes	1023	1023	1023	1023	1023	1023		
TaskStopAbortAxes	0	0	0	0	0	0		

/Memory Allocation								
NI	Value							
Name	Task 0	Task 1	Task 2	Task 3	Task 4	Task 5		
CodeSize	4096	16384	4096	4096	4096	4096		
DataSize	512	8192	512	512	512	512		
StackSize	256	256	256	256	256	256		

/Motion								
Name	Value							
	Task 0	Task 1	Task 2	Task 3	Task 4	Task 5		
DefaultWaitMode	1	1	1	1	1	1		
DefaultSCurve	50	50	50	50	50	50		
DefaultCoordinatedSpeed	250	250	50	50	50	50		
DefaultCoordinatedRampRate	1000	1000	500	500	500	500		
DefaultDependentCoordinatedRampRate	200	200	3600	3600	3600	3600		
DefaultCoordinatedRampMode	0	0	0	0	0	0		
DefaultCoordinatedRampTime	100	100	0.5	0.5	0.5	0.5		
DefaultCoordinatedRampDistance	5	5	5	5	5	5		
DefaultDependentCoordinatedSpeed	7	7	360	360	360	360		