ITIA
Information Model Robot
Lab Report

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1 OPC UA Gateway

OPC UA Gateway	
Device:	RaspberryPi 3
ID:	BCM2835 (a02082)
MAC:	b8:27:eb:09:db:ca
IP:	192.168.162.84/25
Port:	4840

2 Robot Controller

Robot Controller	
Device:	Robot Controller
ID:	CR750-D
MAC:	38:e0:8e:9e:89:8d
IP:	192.168.162.82/25
PORT:	10003

3   I/O Mapping

Sensors	
Index	**Description**
1	Robot handling module - workpiece alignment
2	Robot handling module - workpiece in pick-up position
3	Control panel - Start (make contact)
4	Control panel - Stop (normally closed)
5	Control panel - Reset (NO contact)
7	Control panel - COM bridge (I7)
8	Robot assembly module (spring magazine) - Slider retracted
9	Robot assembly module (spring magazine) - Slide extended
10	Module robot assembly (spring magazine) - spring available
12	Robot assembly module (lid magazine) - Slide retracted
13	Robot assembly module (lid magazine) - Slide extended
15	Module robot assembly (lid magazine) - lid on tray
900	Robot module (hand) - part not black

Actuators	
Index	**Description**
0	Control panel - Start (LED)
1	Control panel - Reset (LED)
2	Control panel - Q1 (LED)
3	Control panel - Q2 (LED)
4	Control panel - COM bridge (Q4)
8	Robot assembly module (spring magazine) - Slide out
12	Robot assembly module (lid magazine) - Slide out

4 OPC UA Methods

OPC UA Methods	
Method	**Description**
OpenGripper()	Opens the multi function gripper
CloseGripper()	Closes the multi function gripper
Move(X,Y,Z,A,B,C)	Moves the robot arm to the given coordinates
GetErrorLog(NUMLOGS)	Returns the last NUMLOGS errors that occurred
ReadInput(INDEX)	Returns the state of the input at the given index
WriteOutput(INDEX, STATE)	Sets the output at the given INDEX to the given STATE
ResetError()	Resets the robot controller from the error state