WP4 progress:

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Work Package 4 – HARDWARE DEVELOPMENT

Aims:

- **The implementation of the Hardware Reference Platform (HRP) needed for !CHAOS's use cases.**
- **The HRP includes the processor hosting the CU task, device interfaces, I/O integration, signal conditioning, defined by the use cases.**

Work package number	**WP4**	**Start date or starting event:** Month 1				
Work package title	**HARDWARE DEVELOPMENT**					
Activity Type	SUPP					
Participant number	1	2	3	6	8	9
Participant short name	INFN-LNF	INFN-TV	INFN-PG	INFN-LNS	NI	ADF
Person-months per participant:	6	24	32.4	18	2.4	3.6

WP 4 Coordinator: Gaetano Salina (INFN-TV)

- *Task 4.1 - ESCO HRP implementation (Task leader Mauro Piccini)*
- *Task 4.2 – FP HRP implementation (Task leader Salvatore Puvirenti)*
- *Task 4.3 - Identification of the operating standards for wired and wireless network connections (Task leader Bruno Checcucci)*
- *Task 4.4 - General purpose HRP (Task leader Gaetano Salina)*

Work to be carried out: development, test and qualification of the hardware for the ESCO use case; study, prototyping and testing of critical parts for accelerators; study and implementation of general purpose HRP.

WP 4 Status:

	design & preparatory phase
	development & integration
	test and qualification

	Month					
WP 4 HARDWARE DEVELOPMENT TASK	1-2	3-4	5-6	7-8	9-10	10-12
Task 4.1 ESCO HRP implementation						
Task 4.2 FP HRP implementation						
Task 4.3 Identification of the operating standards for wired and wireless network connections						
Task 4.4 General purpose HRP						

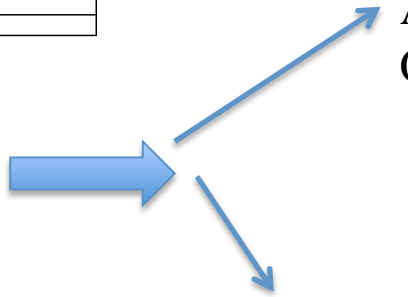
Requirements Collections

Touscheck				
	Name of output Actuator	Type of input Voltage/current/digital RTD	Physical/Logical variable	Type of connection
	Name of Actual Control system	Numbers of input parameters/ Numbers of output parameters.	Physical/Logical Managed variables	Type of Connections

Example:

Name of input Sensor	Type of output Voltage current/digitale/ RTD	Physical/Logical variable	Type of connection
Pt1000 A	RTD	Temperature	cables
Pt1000 B	RTD	Temperature	# 2 pin

Name of output Actuator	Type of input Voltage/current/digital RTD	Physical/Logical variable	Type of connection
Pump A	V 0-10	Air flux	cables
Pump A	V 0-10	Air flux	cables



RTD INPUT ANALOG OUTPUT

Claudio

Aula Touschek

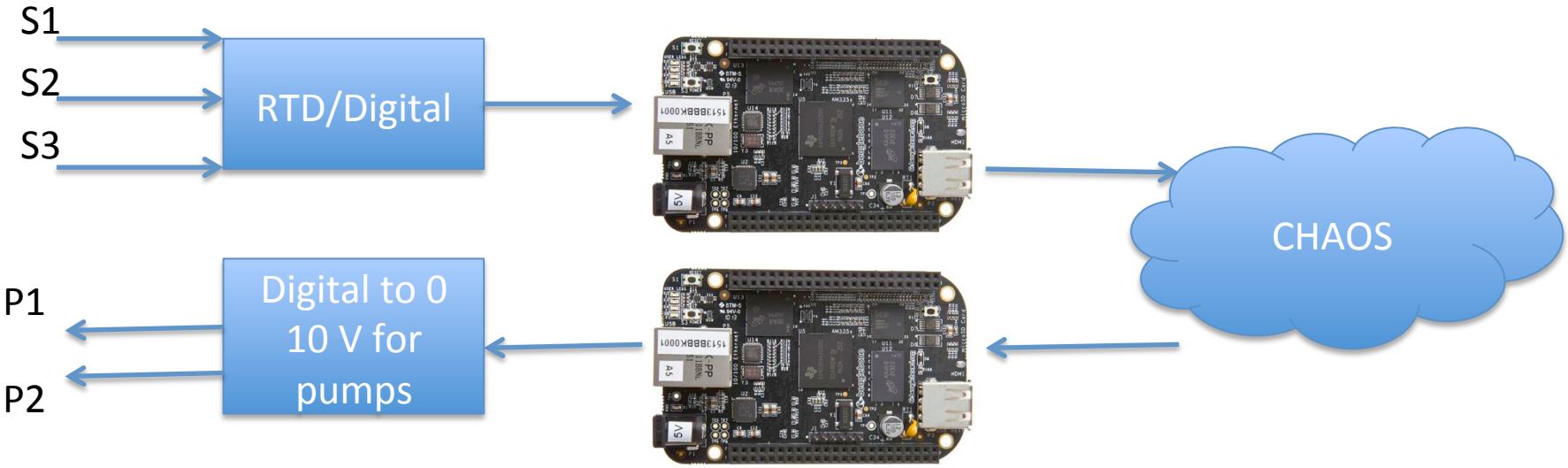
Monitoraggio ed efficientamento

Paolo

OGGETTO: **Monitoraggio ed efficientamento dell'aula Touschek. Individuazione della strumentazione per il monitoraggio delle grandezze energetiche ed ambientali.**

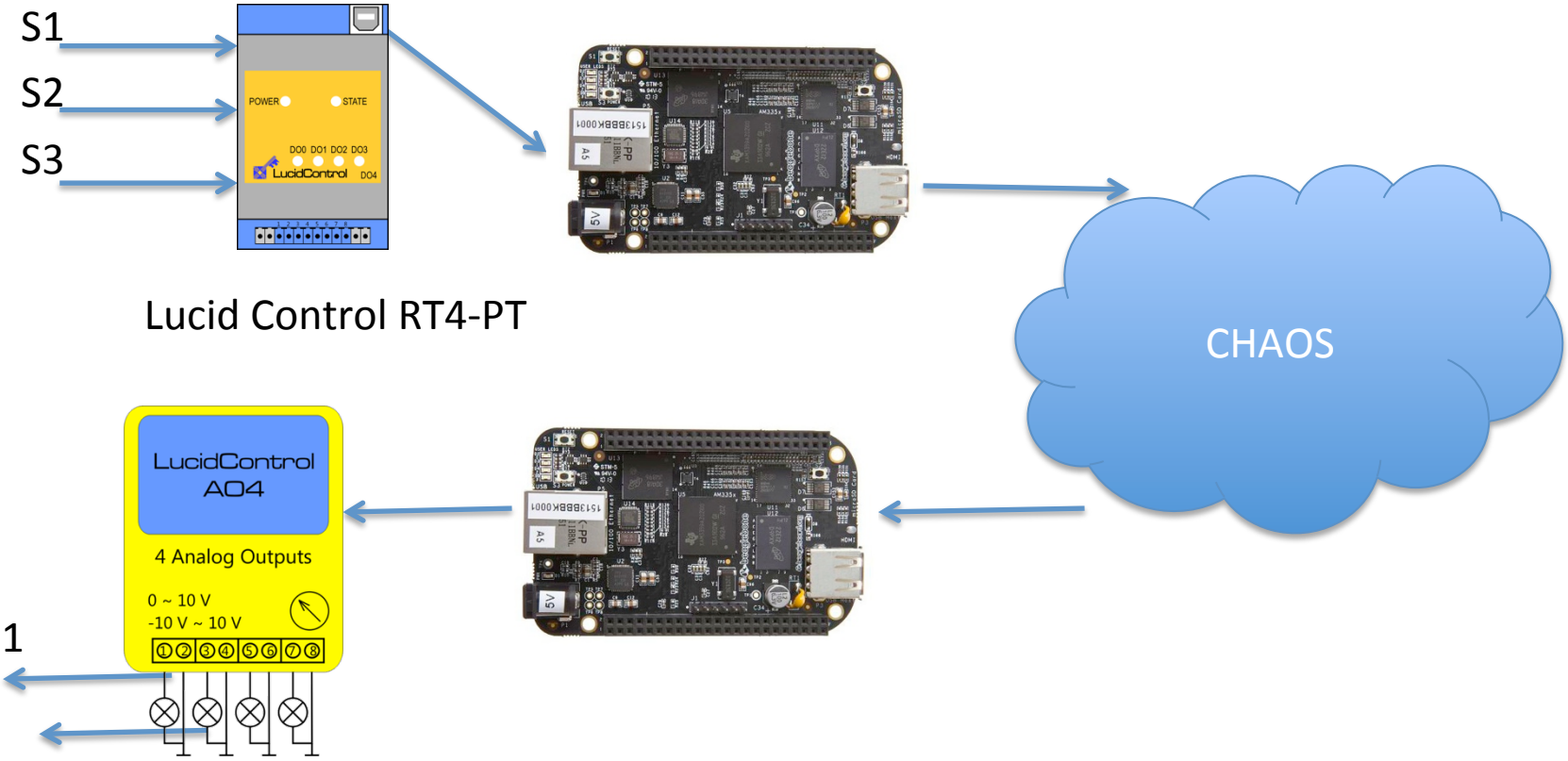
USE CASE: Touschek

- Sensor: PT1000 Sensor temperature
- Actuator : Water pump

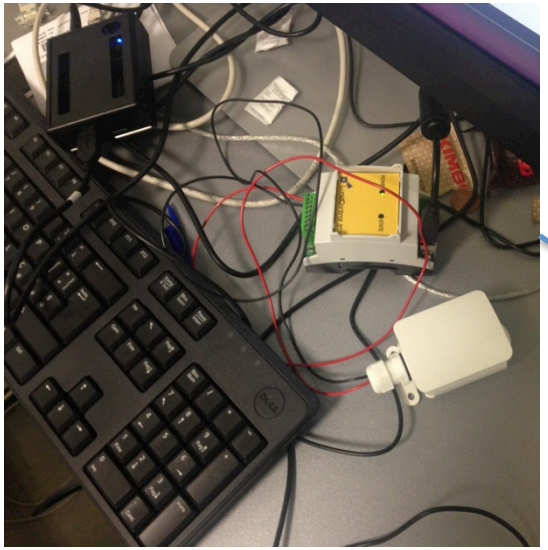


Sala Touschek : Soluzione A

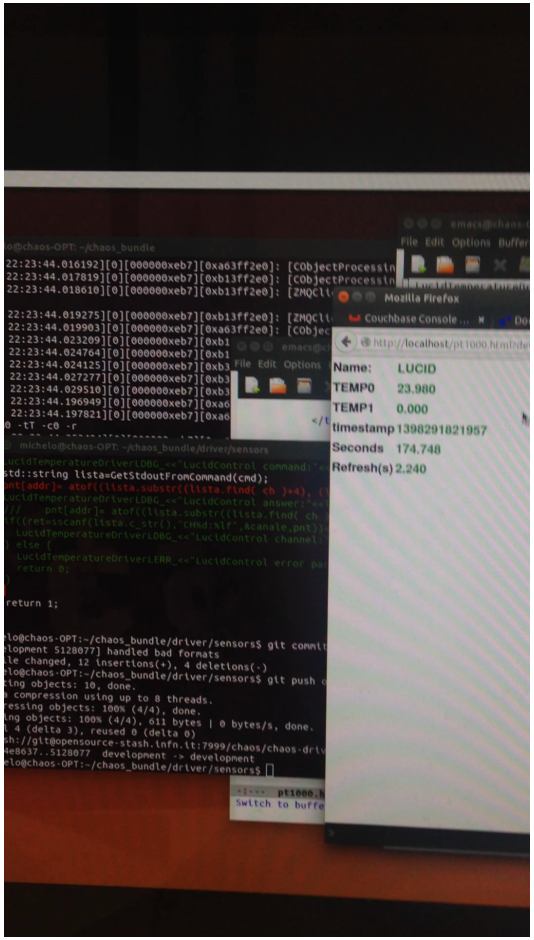
- Sensor: PT1000 Sensor temperature
- Actuator : Water pump



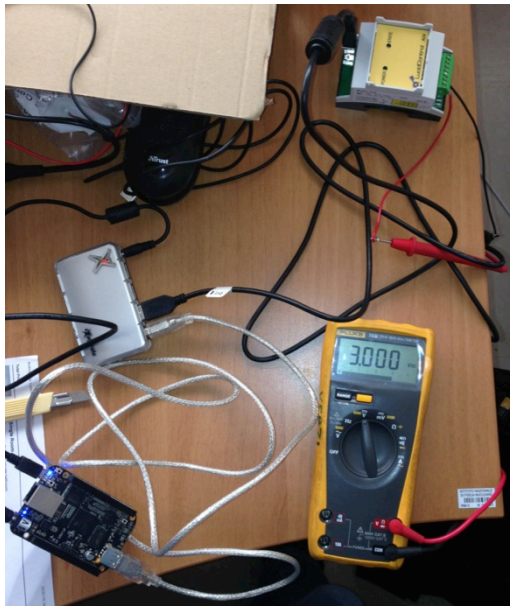
Sensor Temperature Pt1000



First test in CHAOS Platform



Analog otuput 0-10V



Thanks
Andrea

Next steps

- Refining Temperature input
- Implementing Analog output in the framework.
- Deploy in conditioning control room of Touschek