3-7-4-1-lpc-hardware-2019-3-18.odp

CTI One Corporation

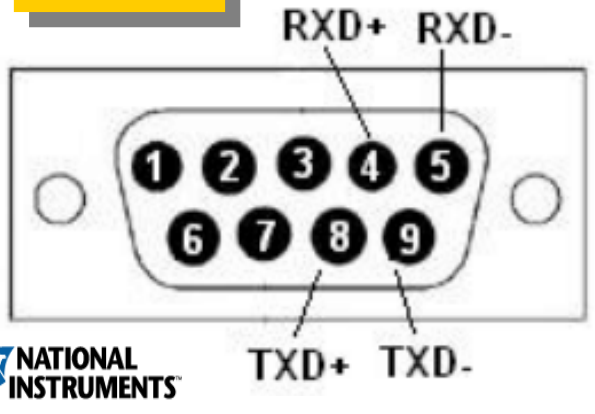
Version: x0.4
Date: Sep 7, 2018
Project Lead: Harry Li, Ph.D.

Team members:

Mar-28-2019 MODBUS

Mar-28-2019 Sierra Smart-Track-100 Compod

RS485

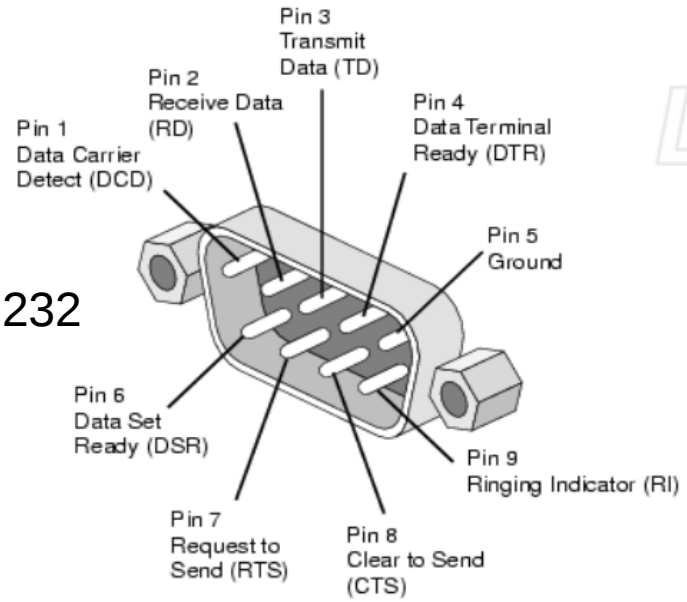


https://knowledge.ni.com/KnowledgeArticleDetails?id=kA00Z000000P9E8SAK&l=en-US

Male DB9

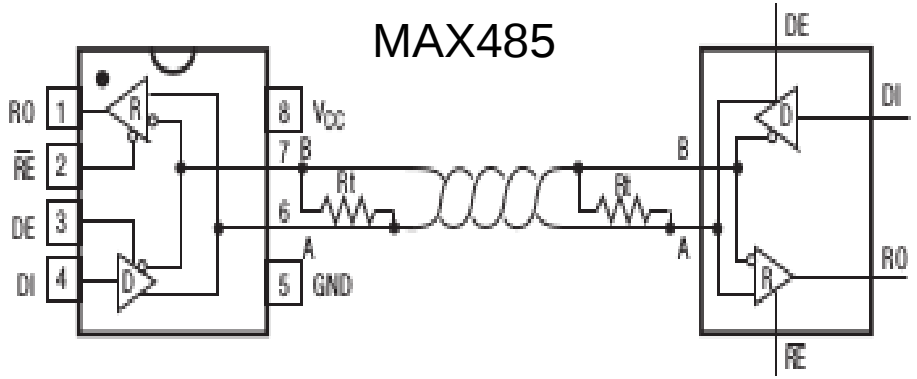
RS-485 communication with MODBUS RTU protocol allows digital multi-drop networks

RS232



Note LPCNOD with DB9 Male connector for RS485 communication to Smart-track-100 compod DB9 Male connector, so we need DB9-DB9 female to female cable. See below:

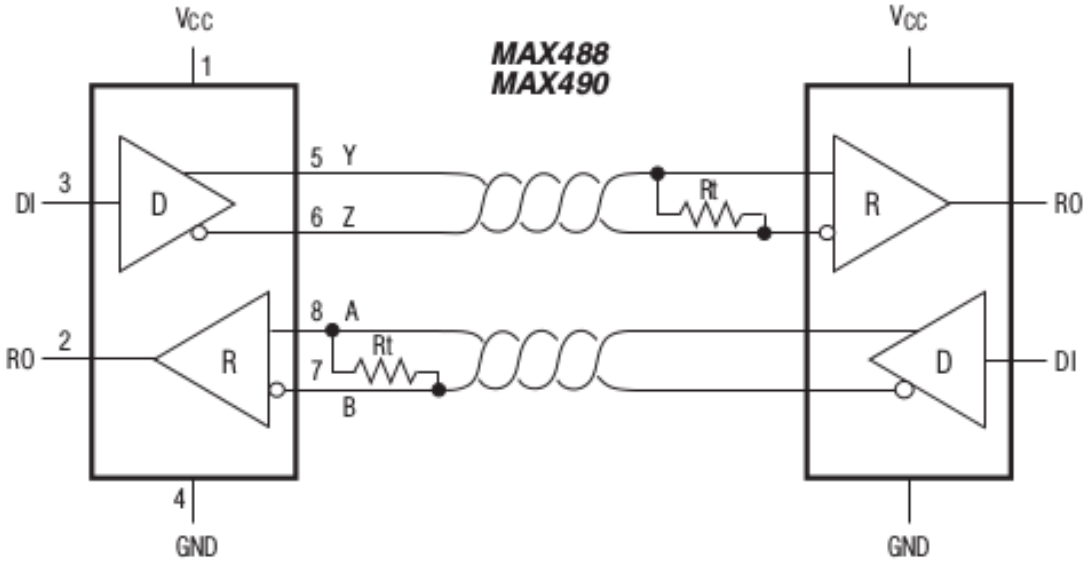
Mar-28-2019 RS485 Hardware



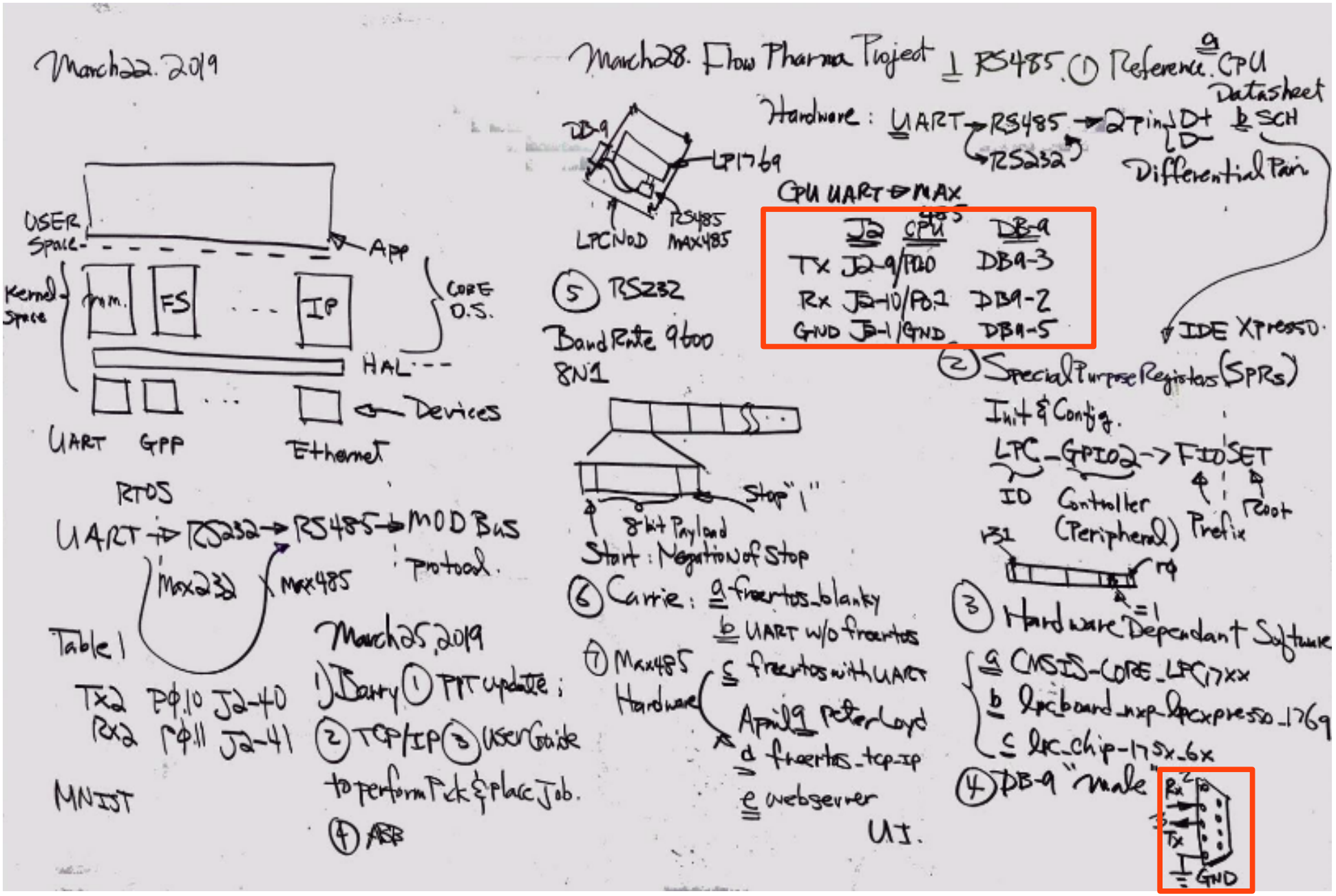
RO	Receiver Output: If A > B by 200mV, RO will be high; If A < B by 200mV, RO will be low.
$\overline{RE}$	Receiver Output Enable. RO is enabled when $\overline{RE}$ is low; RO is high impedance when $\overline{RE}$ is high.
DE	Driver Output Enable. The driver outputs, Y and Z, are enabled by bringing DE high. They are high impedance when DE is low. If the driver outputs are enabled, the parts function as line drivers. While they are high impedance, they function as line receivers if $\overline{RE}$ is low.
DI	Driver Input. A low on DI forces output Y low and output Z high. Similarly, a high on DI forces output Y high and output Z low.

From MAX485 datasheet, pp. 7

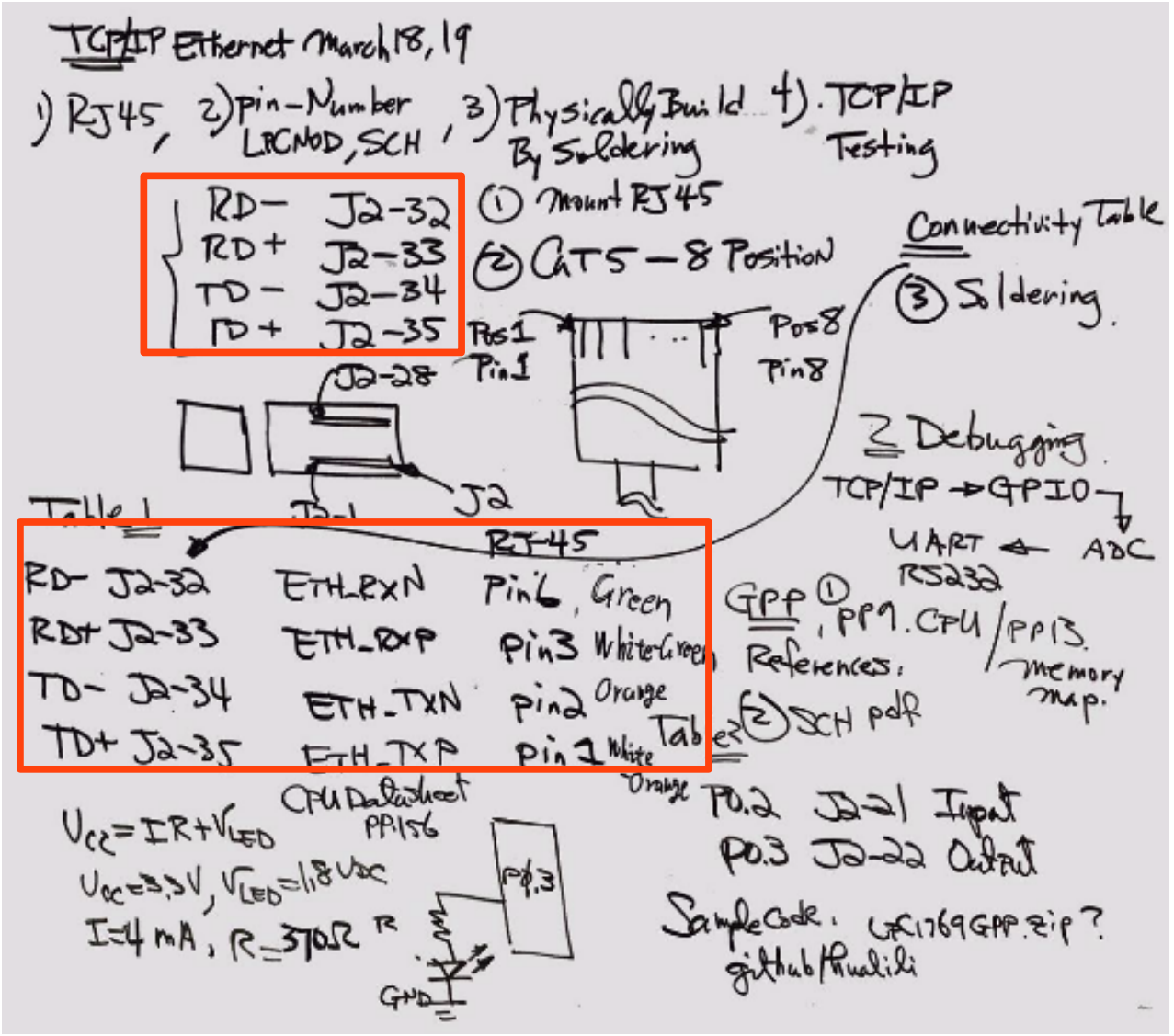
Need to verify Sierra Smart-Track-100 485 pin configuration



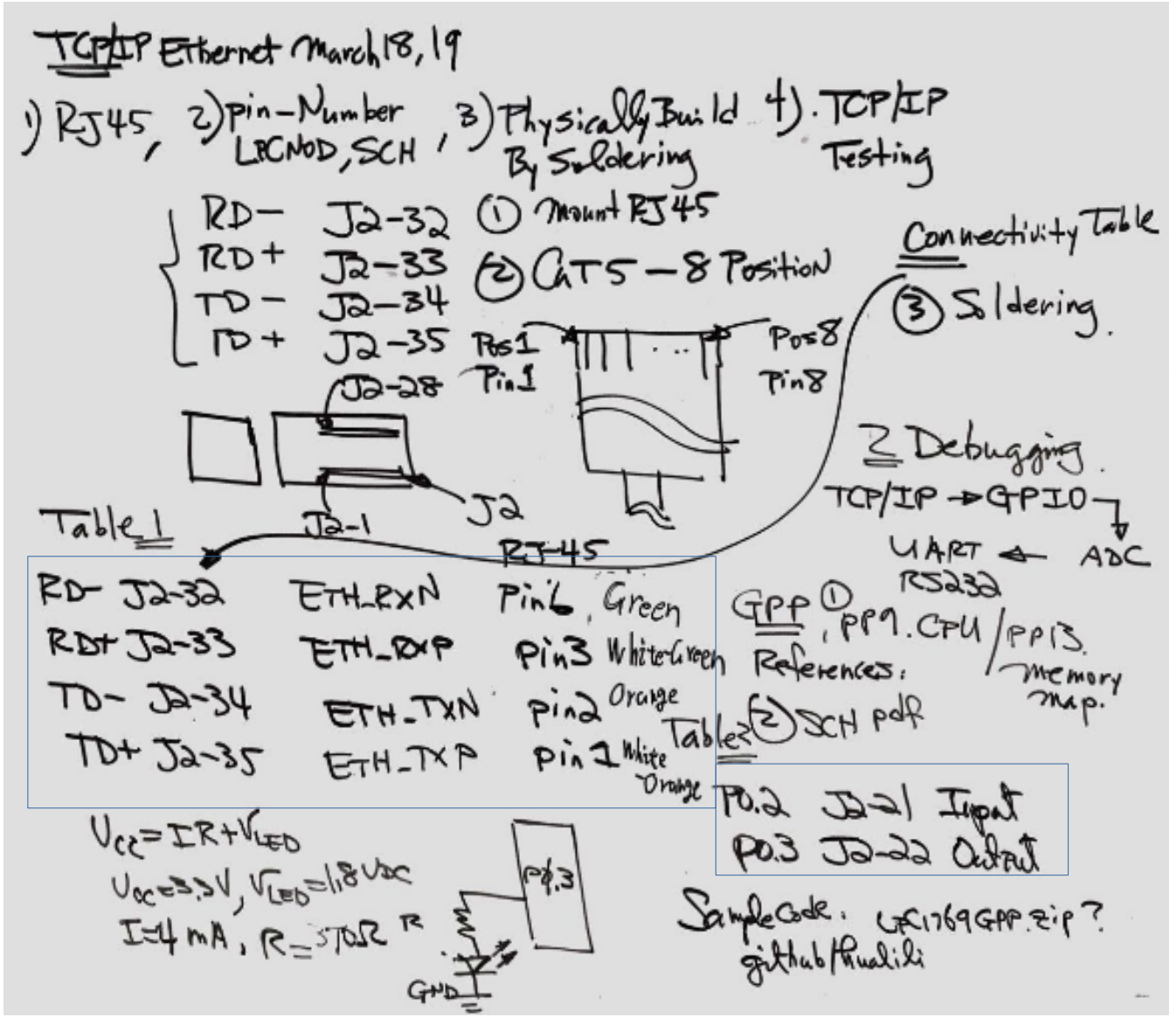
Mar-28-2019 RS232 Hardware



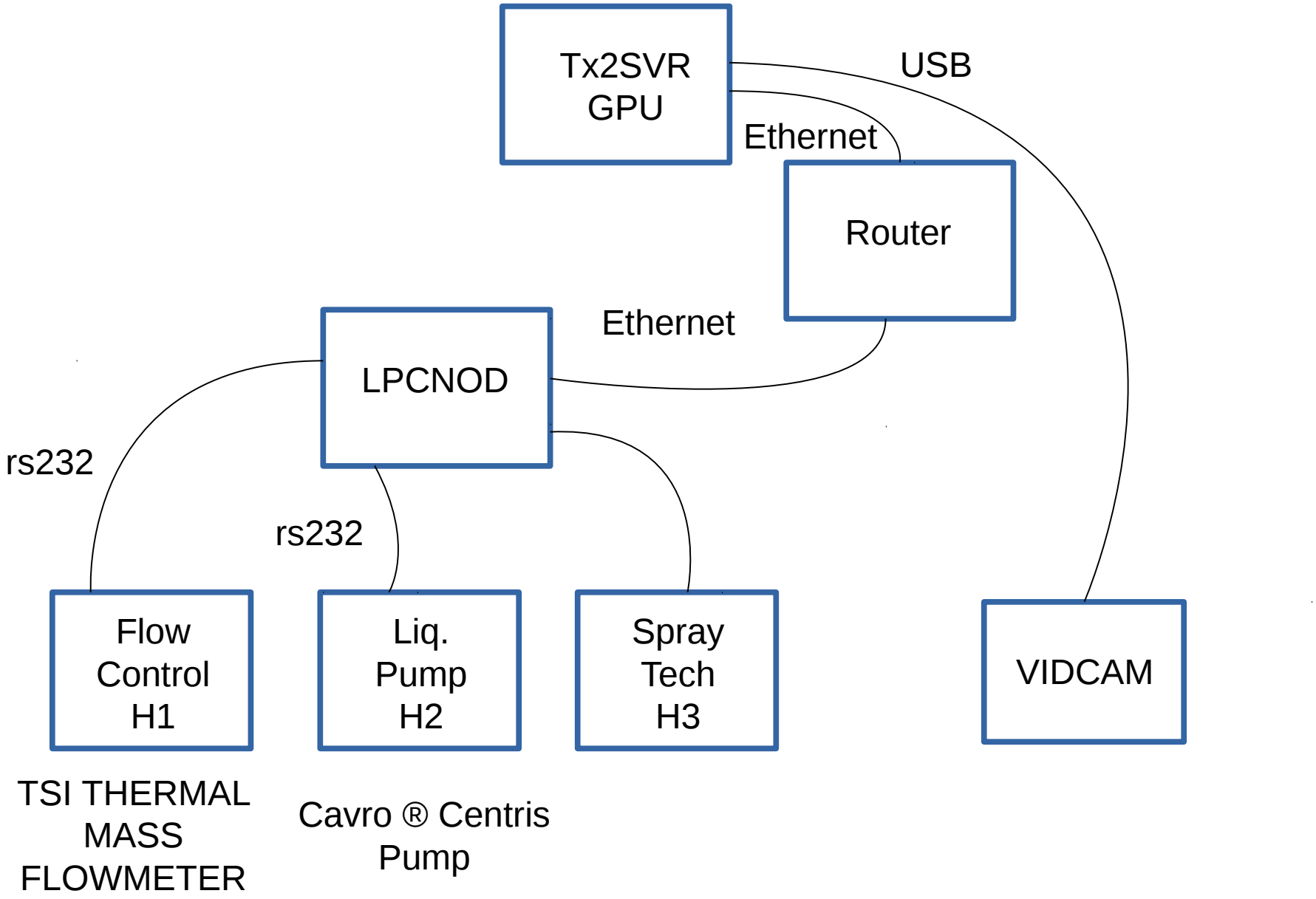
Mar-28-2019 Ethernet Hardware



Mar-19-2019 TCP/IP Hardware



TX2SVR System Architecture



Mar-19-2019 Prototype Design

Mar-28-2019 Intern Orientation

Bill of Material for Control Project and AGV2000.

✓1.	Right Angle RJ45 Connector	5	March20, 19
-2.	DB-9 Right Angle Connector	2	(male)
✓3.	PDIP (Packaging) Max232	3	
4.	Right Angle PWR Connector and plug.		

Orientation Process.

1° Paper Work for ID/Authorization verification; 2° NDA, 3° Professional Deck. By the End of 3 month Period;

4° Hours/Load 5° Professionalism