

# **CAN DATA LOGGER for X-Ray Collimator**

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### 1 OBJECTIVE

To create a data log of the CAN Data bitstream being communicated over the CAN Bus line for future references and error detections.

### 2 ABSTRACT

CAN Data Logger is the minimalistic hardware addition to any CAN Communication system having a 9-pin DB9 Connector (RS232). The data is tapped from in between the comm. line & then data packets in the form of data bitstreams are transmitted serially to a Linux or QNX Operating System which can then be pushed into the SHPL Server.

# ATMega328p VCC DATA GND Artis System Collimator [Rx] CAN Data 45V CAN to USB Dout GND CAN to USB Dout GND CAN to USB Dout GND CAN H MISO CAN H MISO CAN H MISO CAN H MISO CAN L GND VCC MCP 2515 Controller System Controller [Tx]

Artis System Replica - CAN Data Logger Configured

### 5 RESULT & DISCUSSION



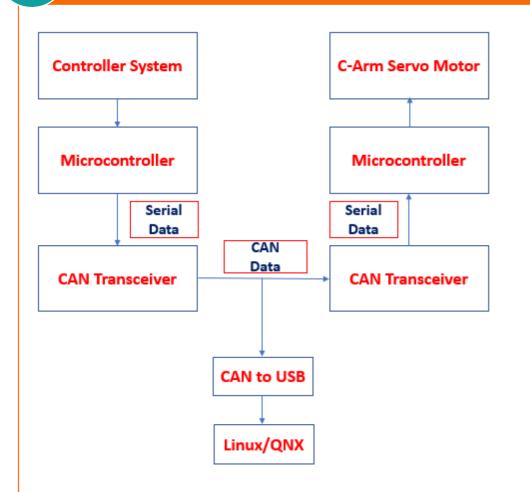


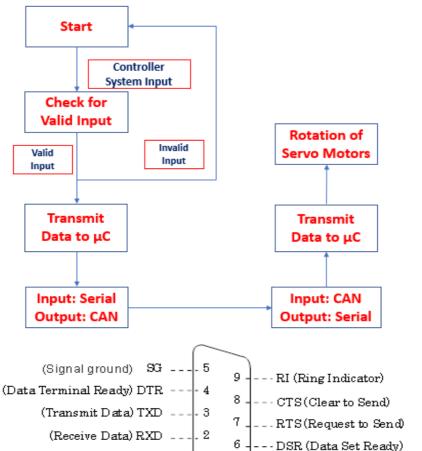
Successful Transmission and Reception of data from Artis Controller to Collimator.

### 6 CONCLUSION

This solution eliminates the need for sophisticated hardware additions to the existing Artis system to pull-out the CAN Data. The CAN to USB Converter handles the lossless data packet reception thereby not loosing out on crucial data.

# 3 METHODOLOGY





(Data Carrier Detect) DCD

## **7** REFERENCES

An Embedded CAN-BUS Communication Module for Measurement and Control System.

Xiaoming Li, Mingxiong Li Mechatronics Institute, Faculty of Mechanical Engineering and Automation, Zhejiang Sci-Tech University, Hangzhou, China (310018)

**Embedded On-Board Diagnostics System Using CAN Protocol.** 

Pallavi R. Burje, Kailash J. Karande, Amol B. Jagadale International Conference on Communication and Signal Processing, April 3-5, 2014, India