

MICHIGAN STATE
UNIVERSITY

Alpha Presentation

Mobile Application for XCP Measurement
and Calibration

The Capstone Experience

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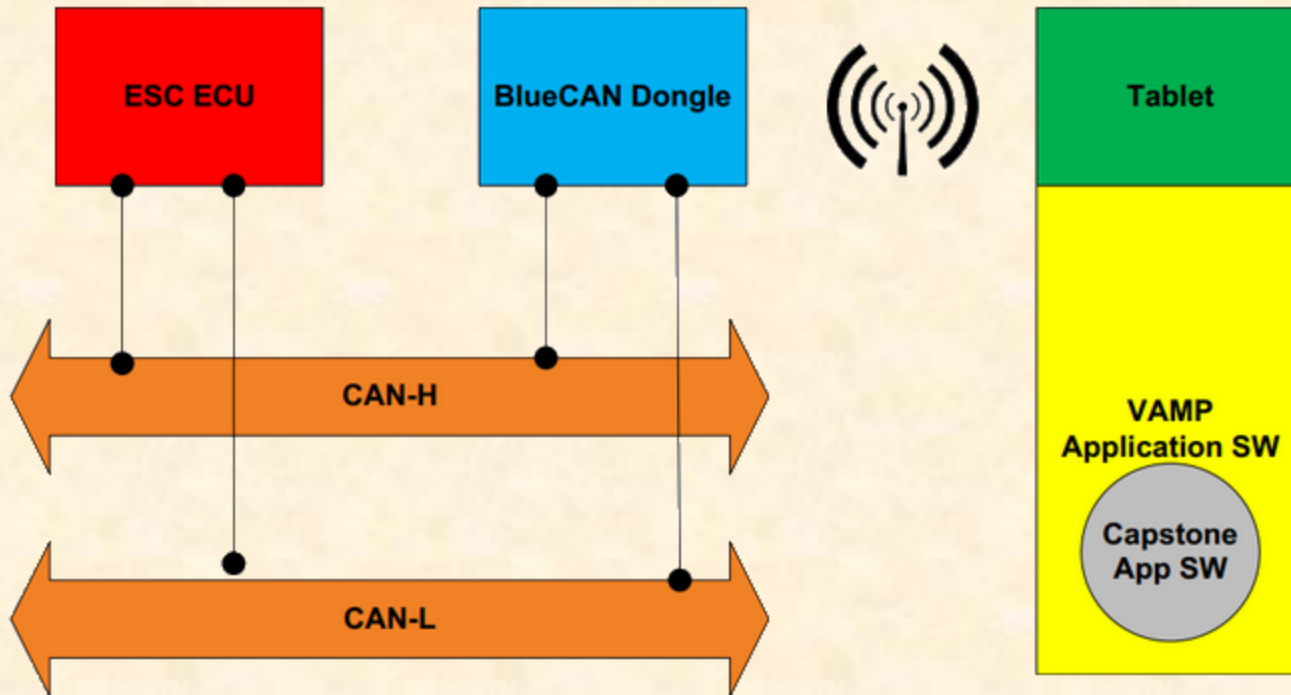
*From Students...
...to Professionals*

Project Overview

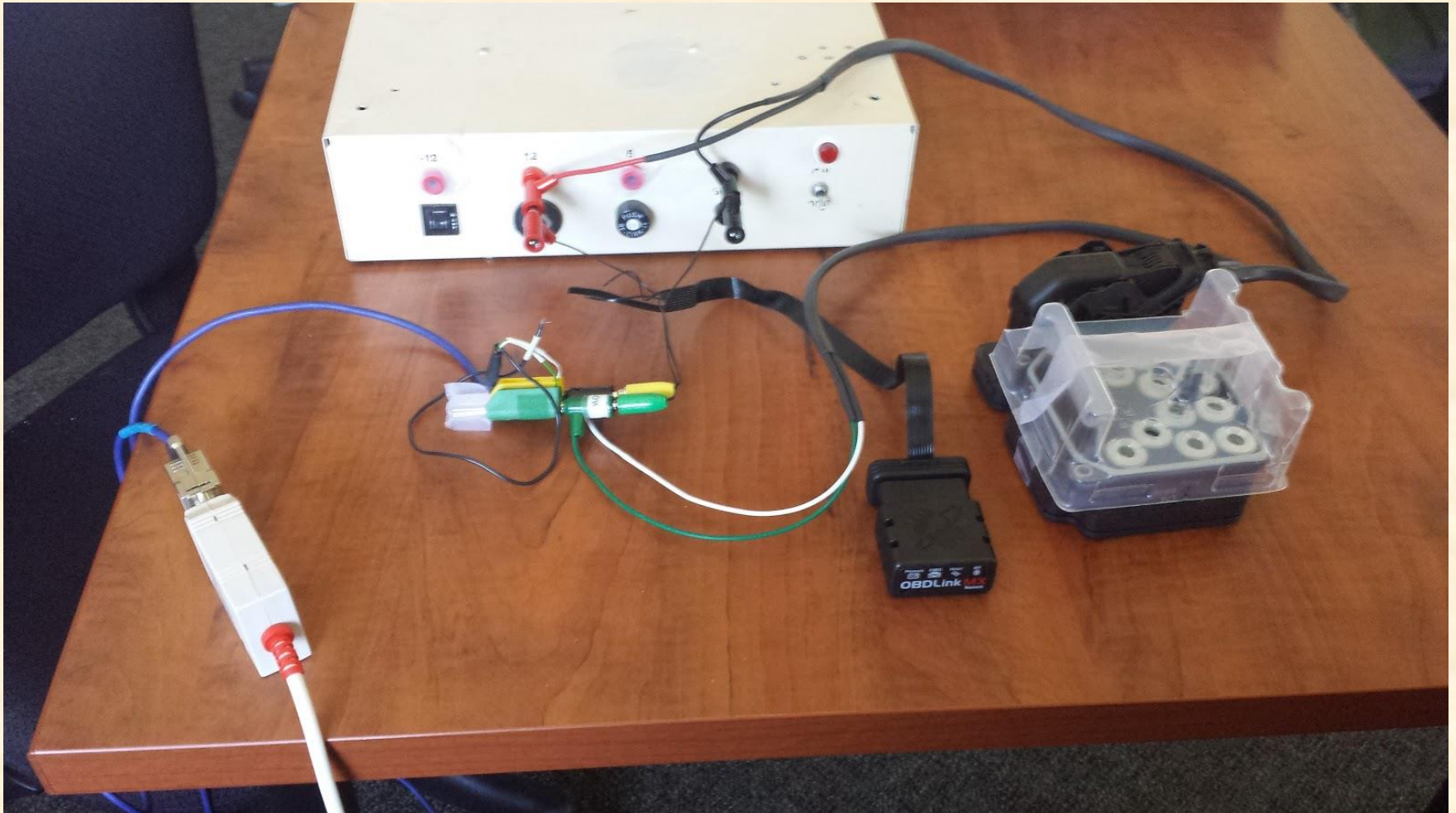
- Mobile application
- That communicates with vehicles
- To receive measurements
- And calibrate vehicles
- Via Bluetooth



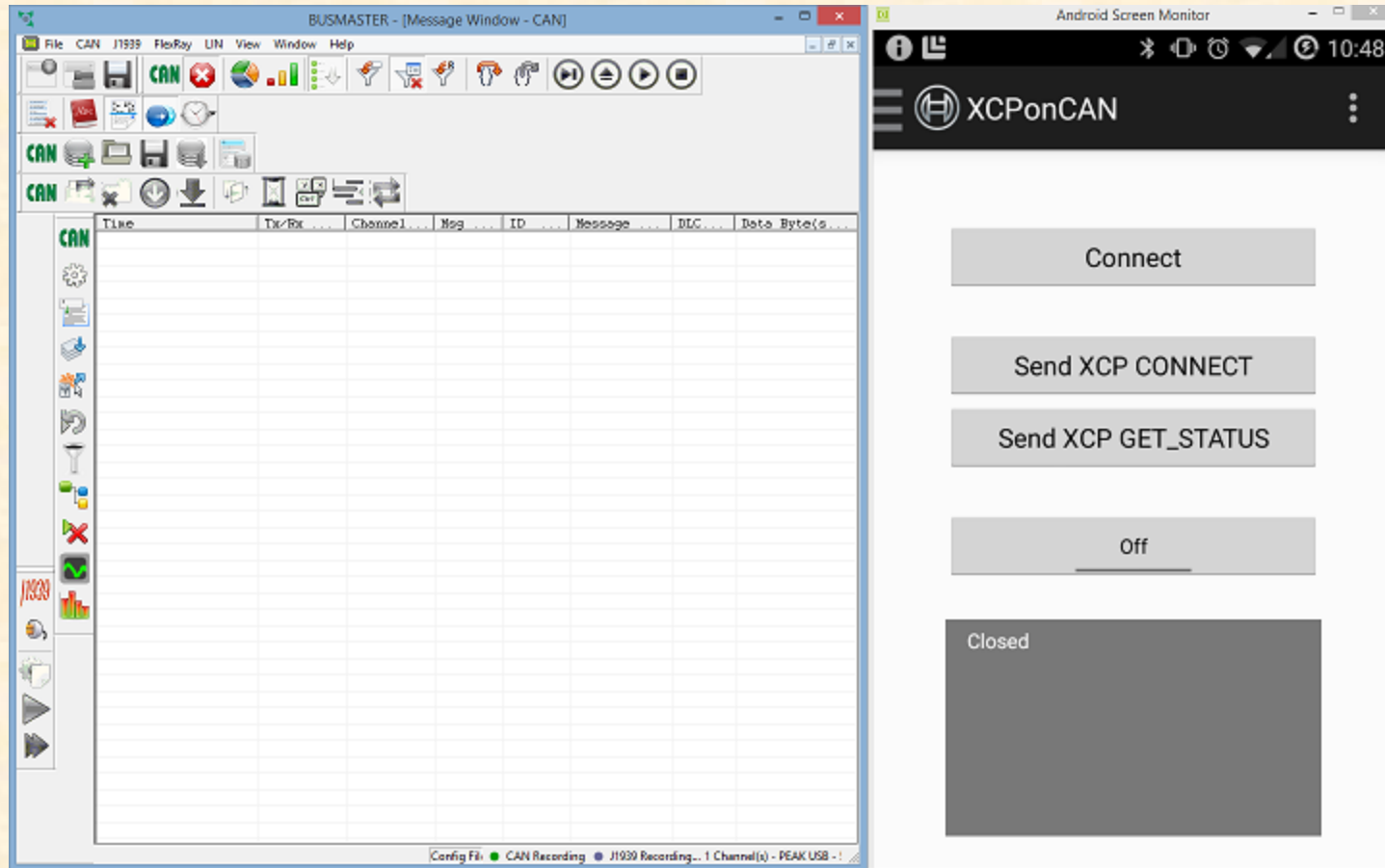
System Architecture



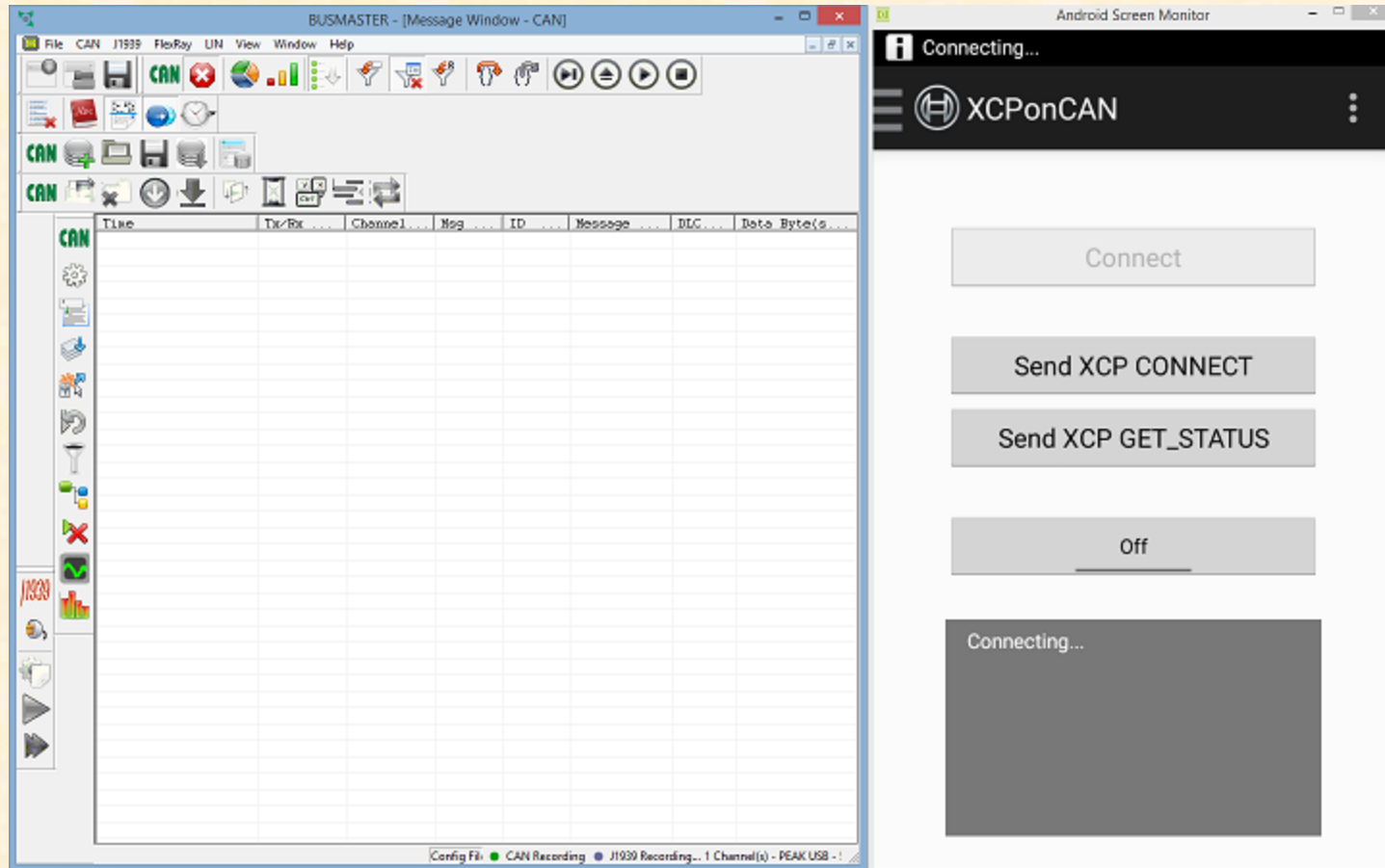
Hardware



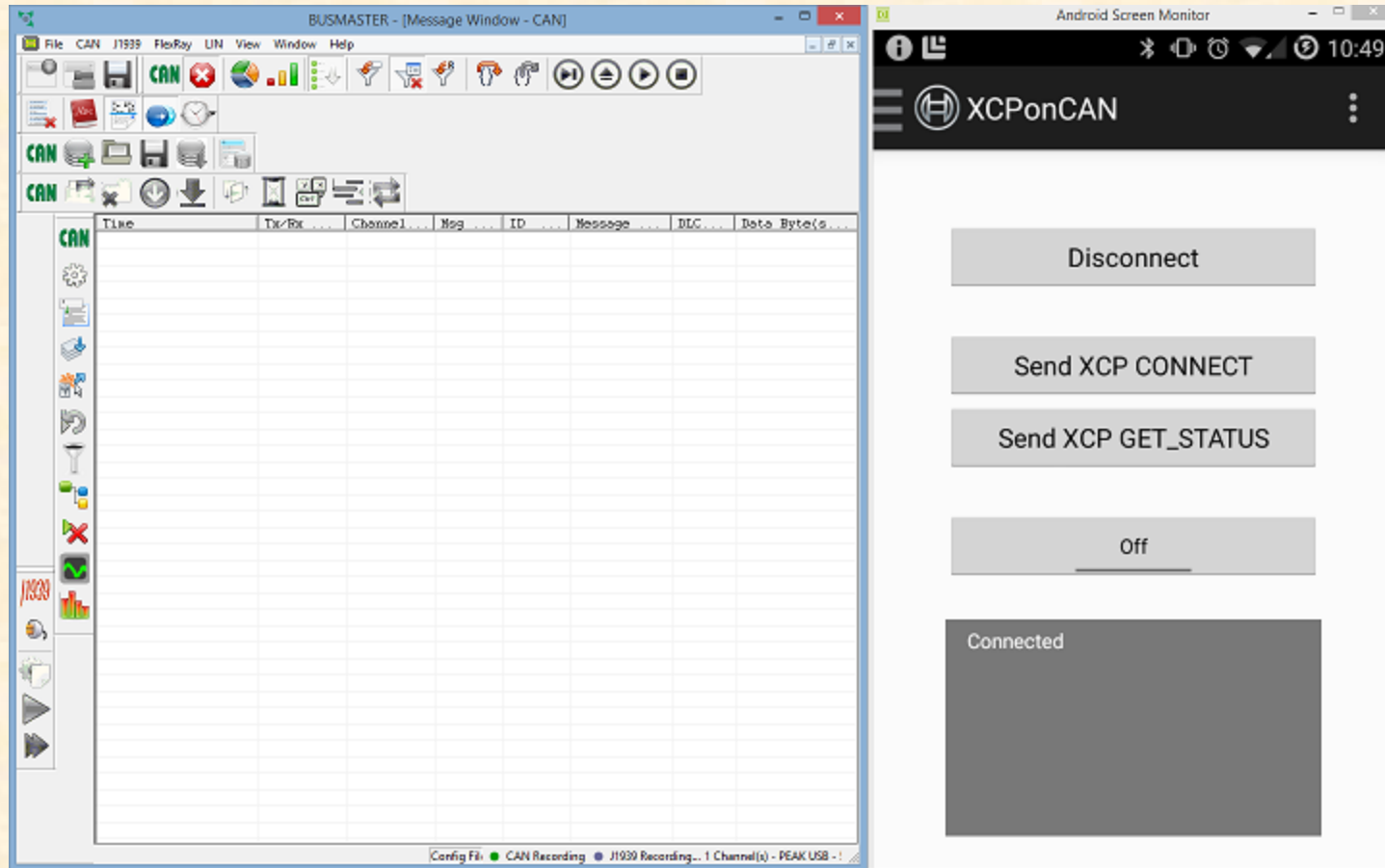
Initial Launch



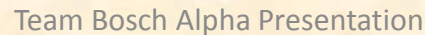
Attempting to Connect



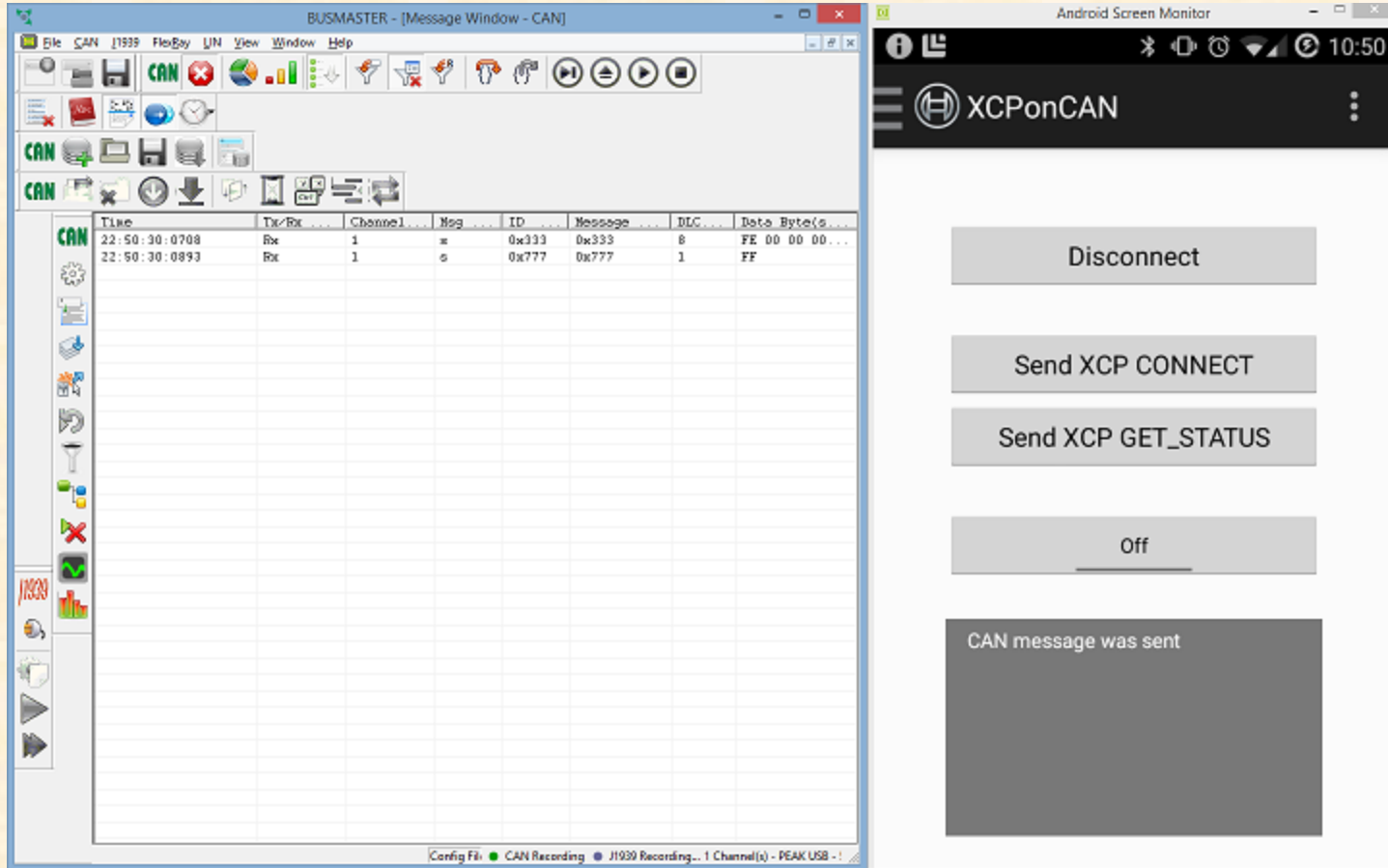
Connected



The Capstone Experience



Send XCP GET_STATUS



Disconnected

The image displays two software windows side-by-side. The left window is 'BUSMASTER - [Message Window - CAN]' and the right is 'Android Screen Monitor'.

BUSMASTER - [Message Window - CAN]

Menu: File, CAN, J1939, FlexRay, LIN, View, Window, Help

Toolbar: Includes icons for CAN bus operations, file management, and playback.

Time	Tx/Rx	Channel	Msg	ID	Message	DLC	Data Byte(s)
22:50:30:0708	Rx	1	*	0x333	0x333	8	FE 00 00 00...
22:50:30:0893	Rx	1	s	0x777	0x777	1	FF

Bottom status bar: Config File, CAN Recording, J1939 Recording... 1 Channel(s) - PEAK USB - 1

Android Screen Monitor

Header: XCPonCAN

Buttons:

- Connect
- Send XCP CONNECT
- Send XCP GET_STATUS
- Off

Footer: Closed



What's left to do?

- Encapsulate CAN functionality in library
- Implement XCP protocol rules
- Research calibration

