# Serial Interface For Mica2Dot

## Vaibhav

(vaibhav@cse.ucsc.edu)

*Sensor Networks @ CHLA*
Progress Report

# TinyOS

- It's a component based OS for sensor network platforms like mica, mica2, avrmote, mica2dot, mica128, rene2.

- It supports sensor boards like basicb, micasb, micawb, micawbdot, pnimag, omnisound, ultrasound, sounderdot.

- The best to take a look at is read the source code from recent CVS snapshot. Introductory details are at http://webs.cs.berkeley.edu/tos.

- It makes extensive use of nesC – a great introduction to it is at http://webs.cs.berkeley.edu/tos/papers/nesc.pdf
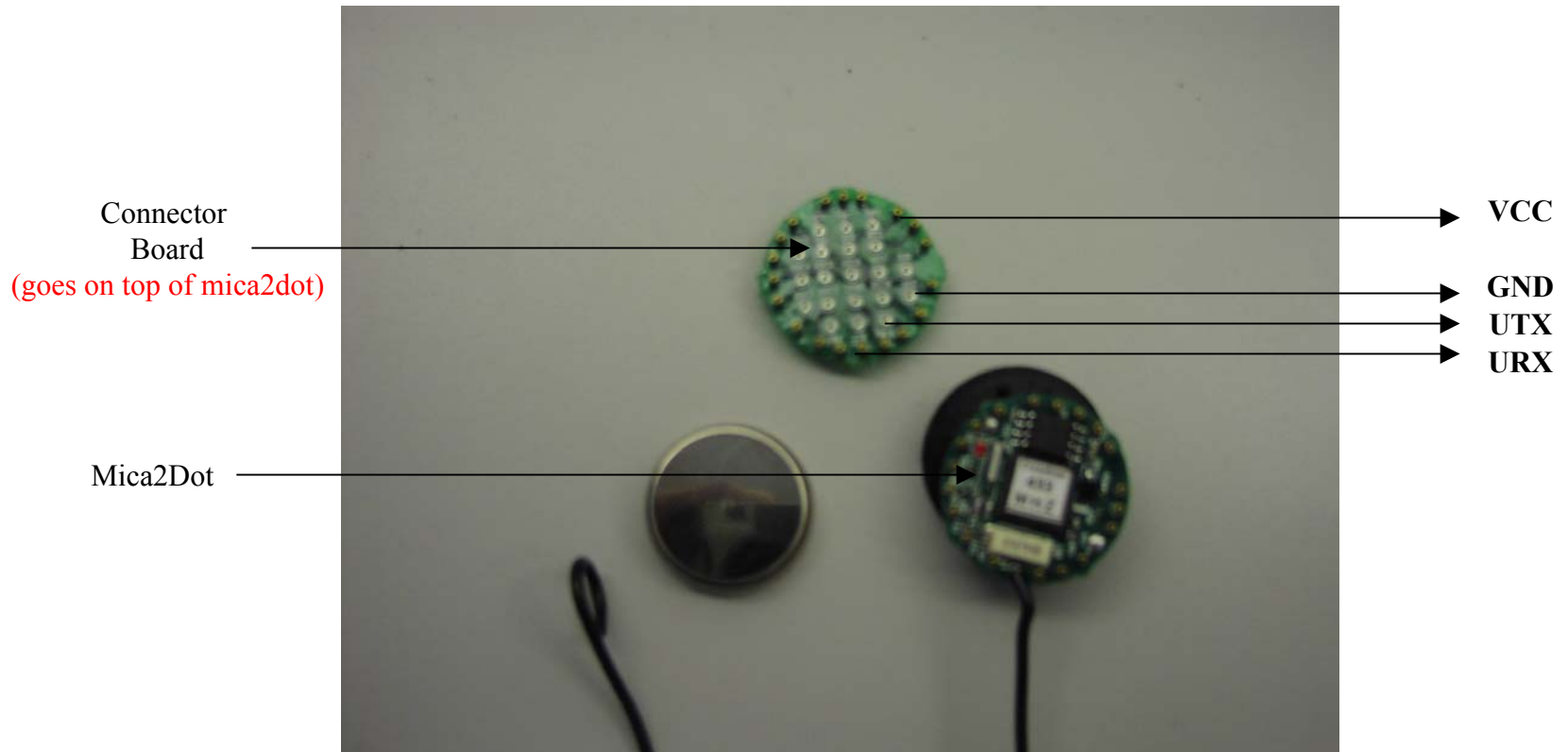
# Mica2Dot

- The hardware specification of mica2dot from TinyOS kernel gives
    - // uart assignments
    - TOSH_ASSIGN_PIN(UART_RXD0, E, 0);
    - TOSH_ASSIGN_PIN(UART_TXD0, E, 1);
- The UART is 0-3v from the micro-controller board. To change this to RS232 (9v) we need a serial IC like MAX232.

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# Mica2Dot Serial Interface

- A serial interface is essential to be able to hook-up commercial alcohol sensors to the board.

- Attach the connector board mica2dot and get VCC, GND, URX and UTX out.

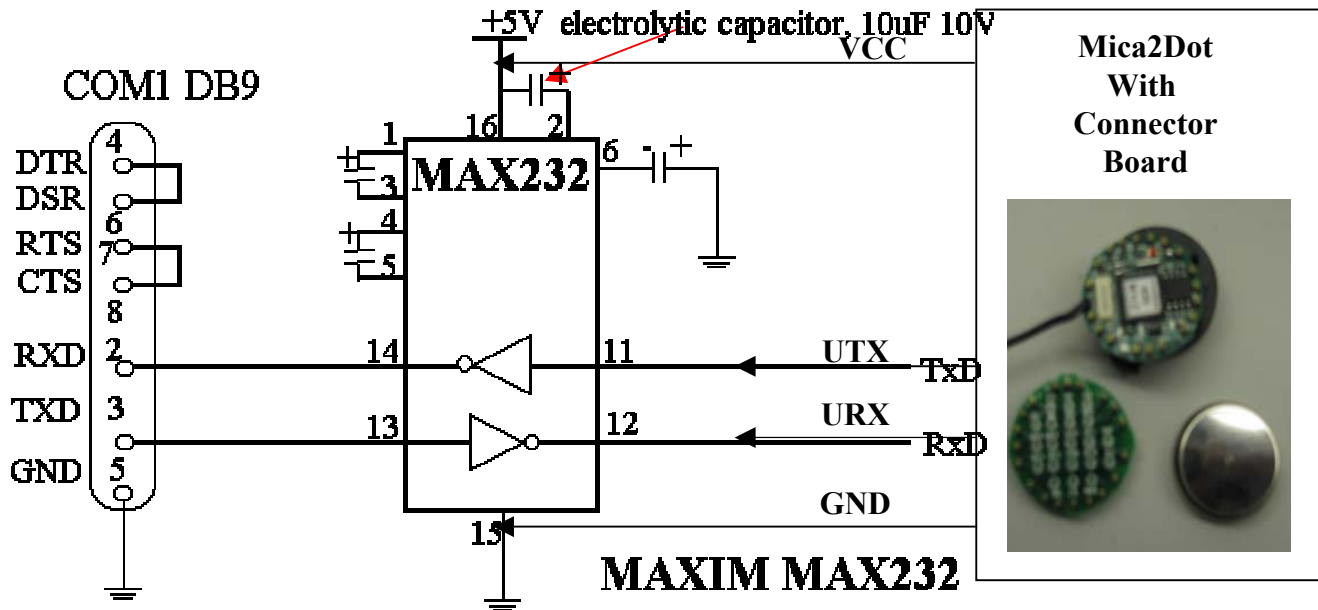- Feed these to the MAX232 chip which in turn is connected to a serial female connector.

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# Mica2Dot Serial Interface



Connector
Board
(goes on top of mica2dot)

Mica2Dot

VCC

GND

UTX

URX

# Block Diagram

# Over to Putting It Together Now!!

## Thanks.