E1.8 CLICK SENSOR HUB

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TEAM MEMEBERS

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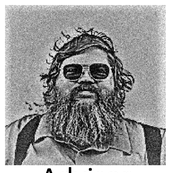
ACKNOWLEDGMENTS

Special Thanks to

TEXAS STATE UNIVERSITY
The rising STAR of Texas

Dr. Bill Stapleton (Left)
Dr. Kevin Kemp (Right)



Advisor

Sponsor

Project Overview

Project Description:

- Click Sensor Hub is an IoT extension for the FRDM-KL46Z development platform.

Project Motivation:

- Enables a lost cost NXP development board to evolve into a modern IoT project kit.
- The four mikroBUS™ socket design goes beyond the current two socket capabilities of NXP clickSHIELD

Project Design Flow:

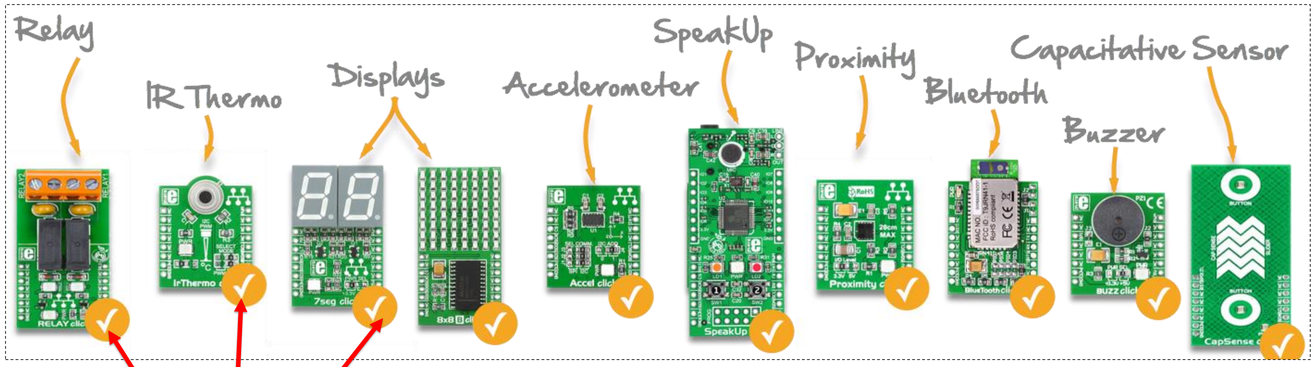
- Hardware Design
  - PCB Connectivity with KL46Z
  - PCB Connectivity with Click
- Software Design
  - Code for ten select Clicks.
  - Any of the four mikroBUS™ sockets have connectivity with ten selected Click.
  - Store and format Data Values.
- Simple Data Analytics
  - Access the data and perform basic calculations. (High/Low Value, Mean,…)

Next Semester Deliverables:

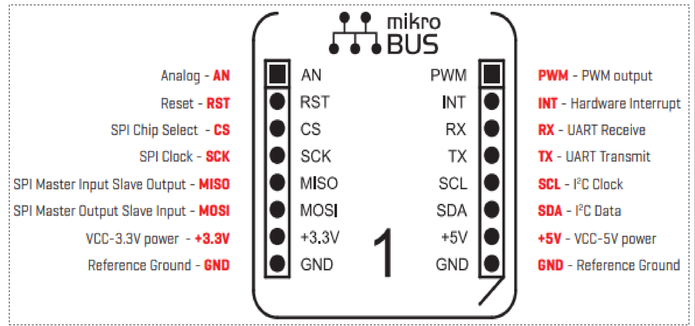
- Completed PCB Design
- Functionality Code for Ten add-on boards
- Error Handling/User Guide Created
- Demo Video of Rapid IoT Functionality
- (Stretch Goal) Website for Data Analytics

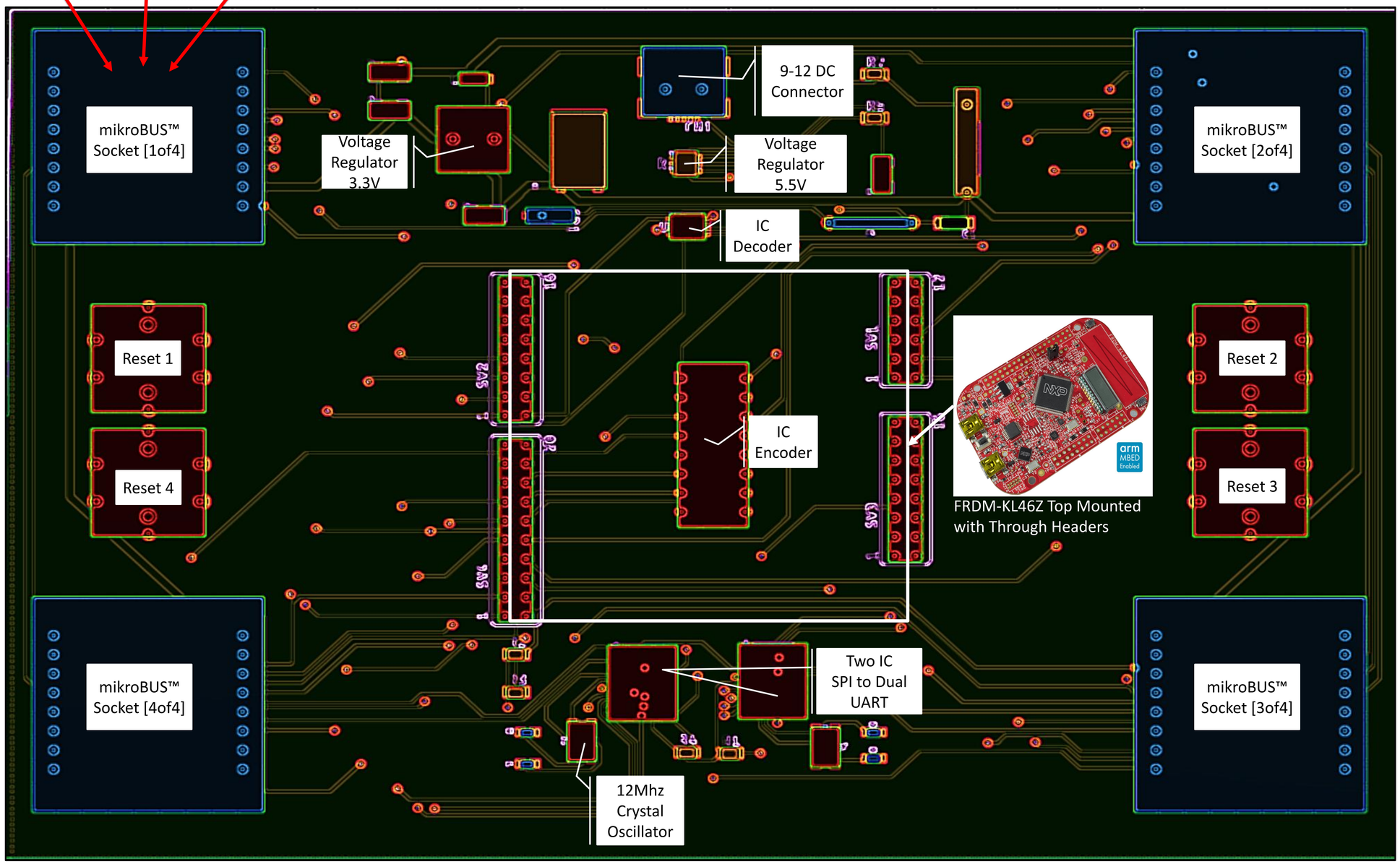
EXPANDED DESIGN BREAKDOWN

Click and Go Design: Take any Click connect it to any mikroBUS™ socket begin your IoT project



What is the mikroBUS™ Standard and How its changed IoT





FRDM-KL46Z Top Mounted with Through Headers