



BSELM Senior Projects in Williston

May 4, 2018, 8AM-4PM in BLP 401

Presenters: Ahmad Alaamri (BS.ELM) and Yousef Alqayidi (BS.ELM)

Project Title: "Solar Tracker"

Presenter: Reed Jeandell (BS.EET)

Project Title: "24x24 LED Matrix Display"

Project Description: Using Arduino software in combination with an addressable RGB LED strips to create a small display for images, animations and text. The use to the WS2812B LED strip will allow for individual customization of color and brightness to any and all LEDs that make up the matrix.

Presenters: Anthony Livingston (BS.CPE) and Logan McGuiness (BS.EET)

Project Title: "The Claw Copter"

Presenter: James Waite (BS.EET)

Project Title: "Meteorological Station A.K.A. Personal Weather Station or PWS"

Project Description: This project is a remote, solar charged, battery powered, wireless weather station centered around an Arduino Pro Mini and an ESP8266 WiFi module.

Presenters: Josh Joy (BS.EET) & Puspa Pradhan (BS.ELM)

Project Title: "SURFup"

Project Description: Our goal is to build a product that makes you a better surfer. SURFup tracks, analyzes and visualizes your surfing data so you can realize your surfing dreams.

Presenters: Frederick Cote-Verville (BS.ELM)

Project Title: "eBike"

Project Description: Engineering a low-cost and reliable way to power a bike with an electric motor. Achieving this by designed 3-D printed parts and using off the shelf parts to produce a reliable design. Many iterations and overcomplicated designs have led me to a simple and efficient design.

Presenters: Christopher Dunkle (BS.EET)

Project Title: "VTCynth: MIDI to Analog Synthesizer Module"

Project Description: This project uses a KL25z microcontroller to translate a MIDI signal into an analog voltage that can be used to control a modular analog synthesizer. A key being played on a MIDI controller keyboard will produce a digital code that is converted to a 0-10V value which corresponds to a 10-octave range on an analog synthesizer. At 1V/octave, a specific tone will be produced for a specific key being played.