

OBJECTIVE

Crosswalks are dangerous with speeding drivers; our team aims to make them safer by creating a lighting system that is:



- Clean
- Inexpensive
- Adaptable

KEY REQUIREMENTS

- Transmit and Receive signals from juxtaposed units
- Power a flashing LEDs light bar
- Self-Powered Unit
- Attach to multiple diameters of street poles and signposts

ACKNOWLEDGMENTS:

Lead Instructor: Brian Johnson

Mentors:

Abdallah Smadi

Phillip Hagen

As students, we wanted to leave our mark on campus. What better way than making it a safer place!





NDEPENDENTLY RAN RENEWABLE NTEGRATED SYSTEM CHARLIE DIMKE, JASON FLOYD, KATHRYN WARNER

BACKGROUND

CONCEPT DEVELOPMENT

VALUE PROPOSITION

- Cheaper than market alternatives
- No construction required
- Adaptable to different signpost sizes
- Efficient and inexpensive way to amplify crosswalk safety

FINAL DESIGN



DAKOTA LITHIUM

VALIDATION

- Components tested for quality
- Wires upgraded for longevity
- Code tested on relay board before LEDs for streamline troubleshooting

CONCLUSION

- Prototype and proof of concept achieved
- Cost Effective
- **Clean and Independent**



LOOKING AHEAD

- Mechanical engineers to finalize design and weatherproof
- Electrical Engineers to create unique PCB
- Computer Engineers create communication protocols







