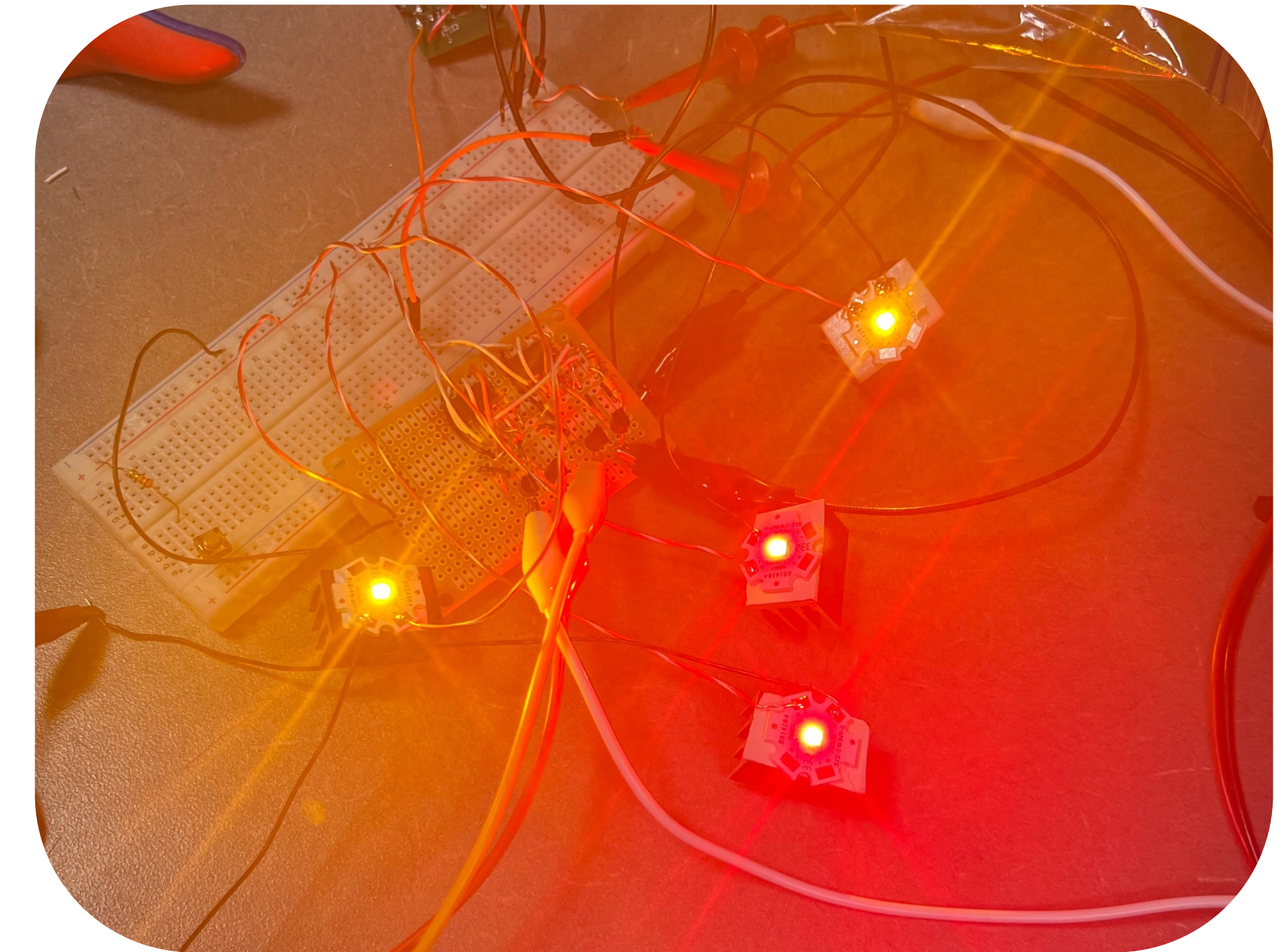


## Why

Bicyclists do not always feel seen or safe near motorists. A safety optimized bike lighting system addresses visibility issues and ensures a better commute.

## Goals

- Headlight
- Taillight with Turn Indicators
- Blindspot Detection
- Projected Laser Lines
- Wireless Communication



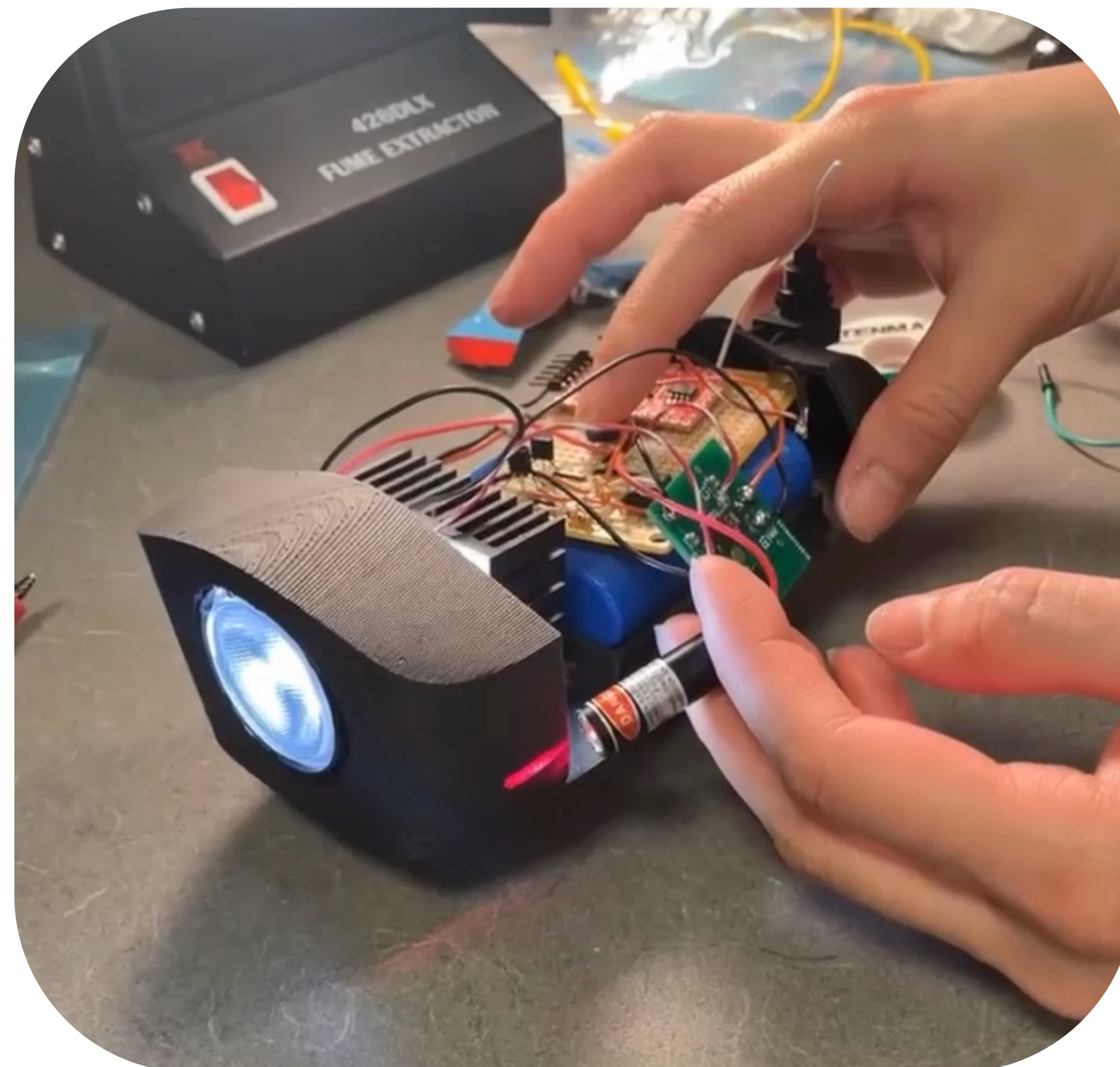
*Protoboard circuit setup to test the taillights (amber) and turn indicators (red).*

## Challenges

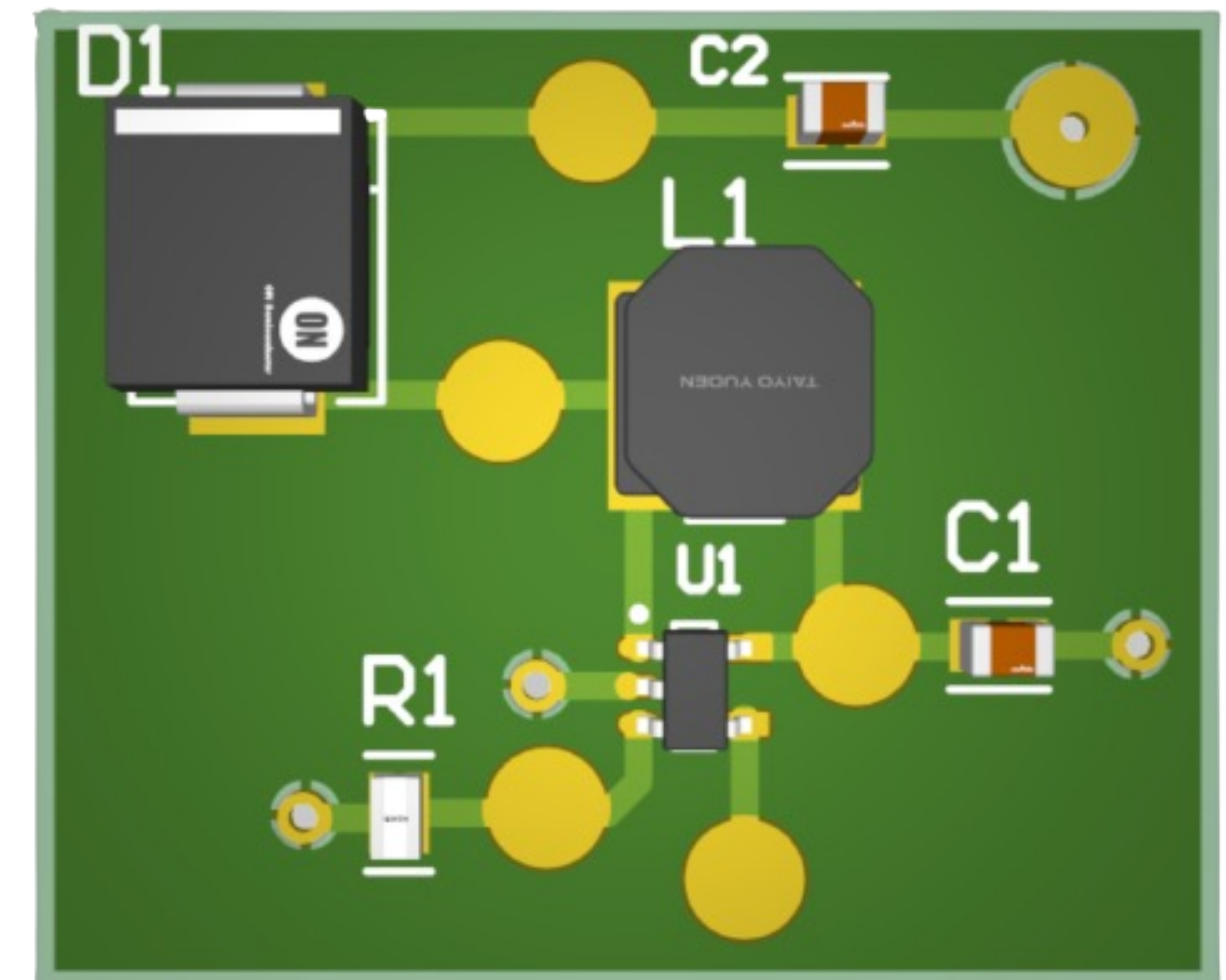
- Power Capabilities
- Limited Testing Timeline
- LiDAR Sensor Limitations
- Learning New Skills on the Fly

## Future Directions

- Improved LiDAR sensor
- Smaller Battery Setup
- Incorporation of Human Factors Research



*Assembled headlight module and front of bike laser projection in its first assembly.*



*PCB layout to control the headlight operations.*