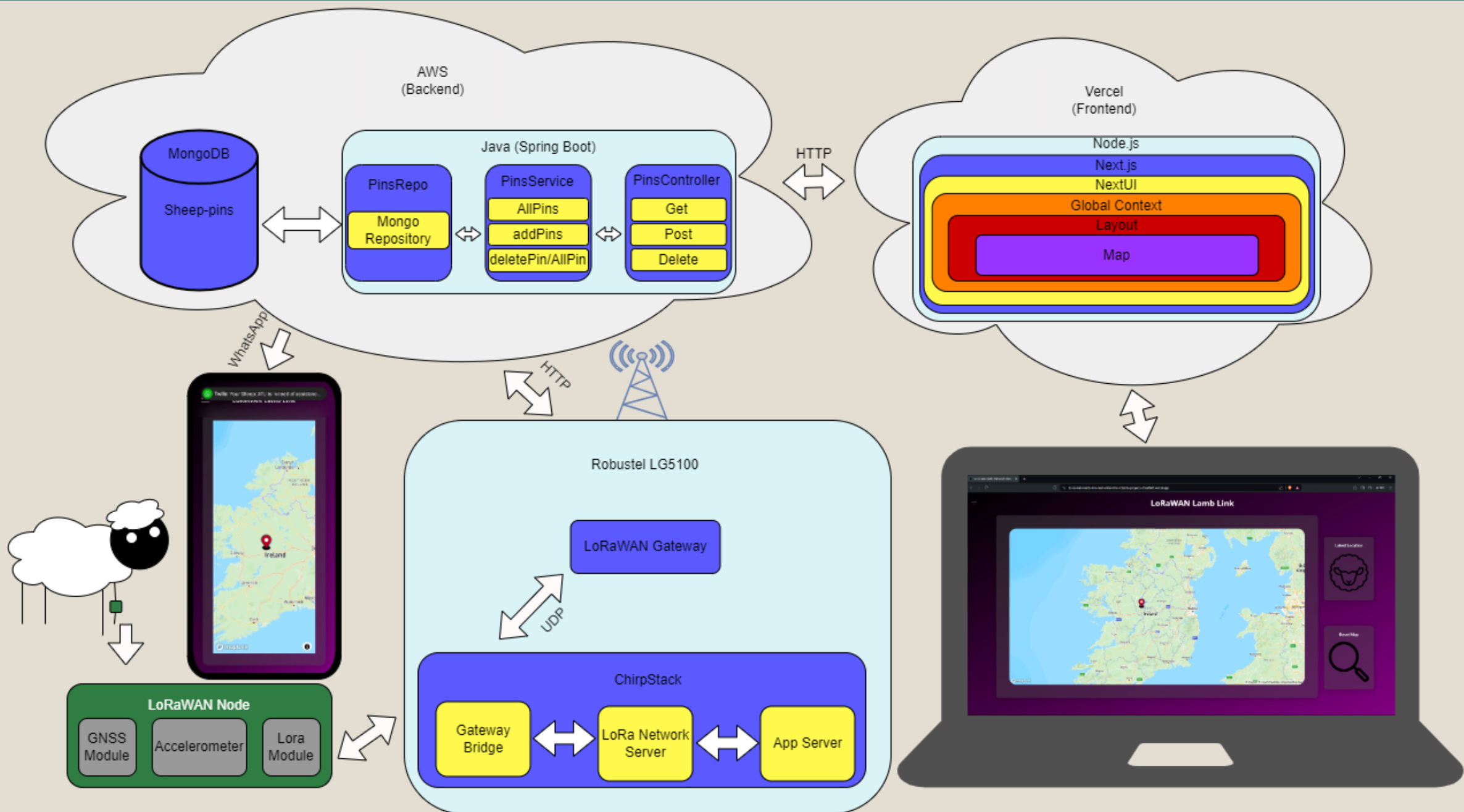


A photograph of a sheep and two lambs standing on a lush green grassy hill. The sheep is in the center, looking towards the camera. Two lambs are positioned on either side of the sheep, slightly behind it. The background is a dark, overcast sky. The entire image is framed by a thin white border.

# LORAWAN LAMB LINK

Robert Muldoon





# Research

- Why LoRaWAN?
- ChirpStack
- Robustel LG5100
- STEVAL-ASTRA1B



# Technical Content

## Software

- Embedded C
- Next.js frontend hosted on Vercel
- Spring Boot backend hosted on AWS
- MongoDB
- Twilio
- ChirpStack

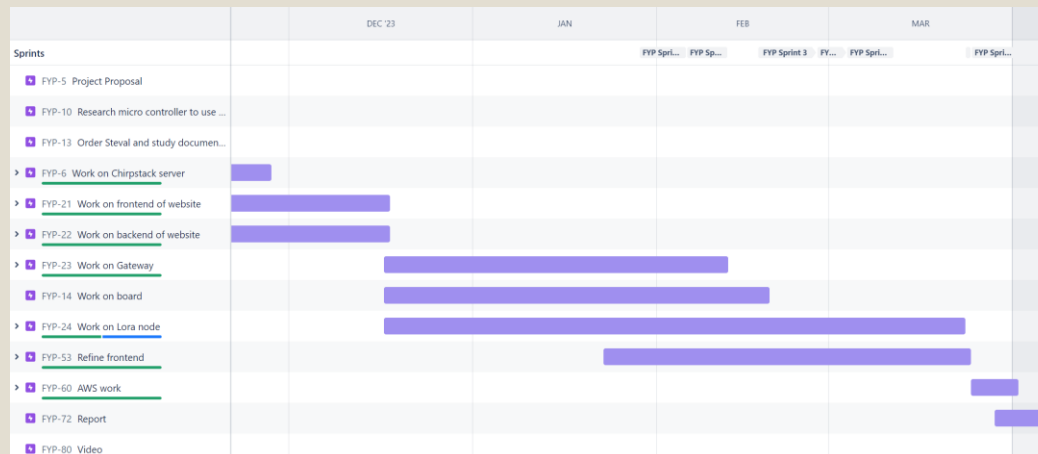
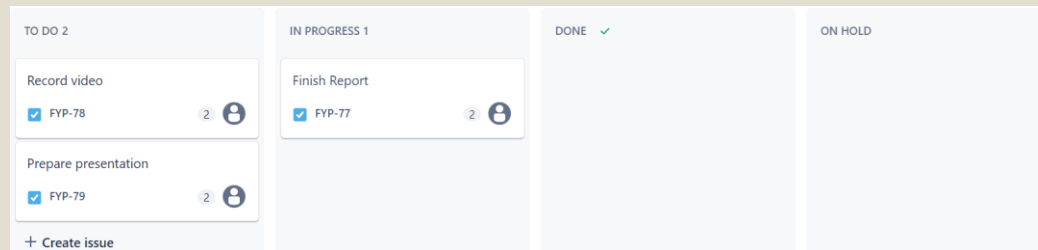
## Hardware

- Robustel LG5100 LoRaWAN Gateway
- STEVAL-ASTRA1B LoRaWAN Node
  - STM32 Microcontroller, LoRa transceiver, GNSS, Accelerometer



# Organisation

- Weekly logs
- Weekly team logs
- Kanban/Scrum
- Regular GitHub commits
- Timeline adaptation to accommodate long delivery times



# Problems Encountered

- Forums (<https://community.st.com/>)
- STEVAL-ASTRA1B firmware/Dev Eui
- Writing device specific decoder
- NextUI component manipulation

