Abstract
RFIDash is a real-time Radio Frequency Identification (RFID) system that enables retailers to take control of their inventory with simple hardware setup and an intuitive dashboard UI.

Motivation
Overstocks, understocks, theft, shrink, incorrect manual inventory adjustments, long checkout lines – this is just a sampling of the many challenges facing retail stores today. Current commercial inventory management systems suffer from being slow, inaccurate, and costly. RFIDash tackles these problems from the ground up with an integrated solution.

System Overview
• 1 reader
• 4 antennae
• 43 tags

RFIDash wirelessly reads tagged items, filters the data, and presents it to the user in real-time.

Algorithm and Data
Received Signal Strength Indication
• ~90% accuracy with 4 antennae reading 35 tags in a 9m x 8m room
• total cost of ~$1500

System Architecture

Features
Zero wait time with transparent checkout

Real-time inventory visibility

Future Work
• Add notification system
• Antenna placement strategy
• Integrate with Point of Sale
• Consolidate and package product
• Pilot program