

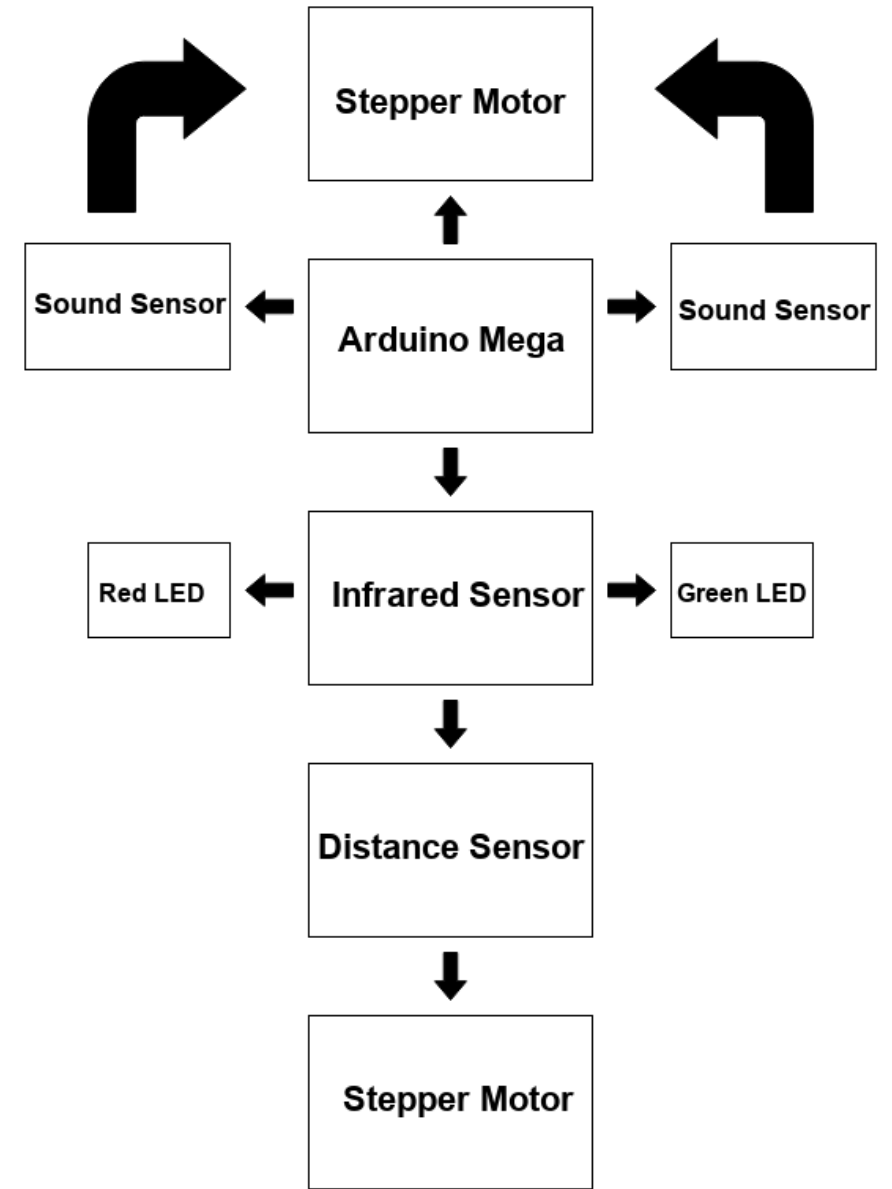
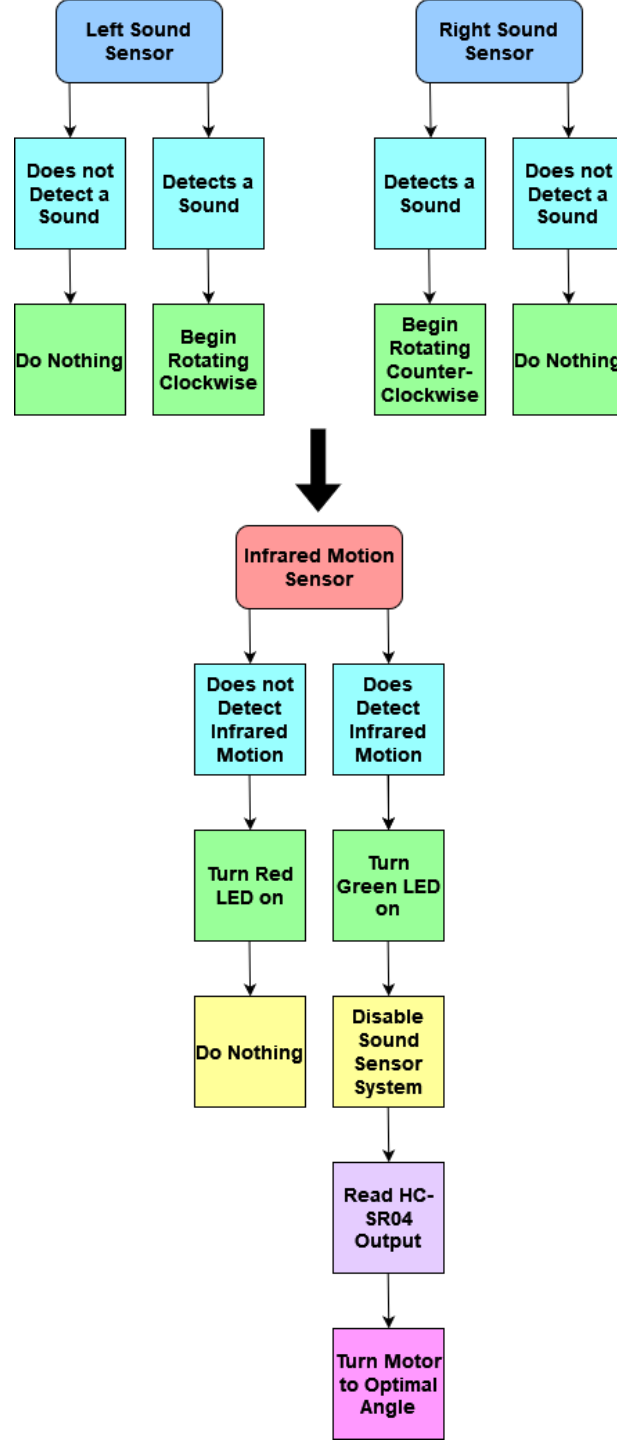
Sound and Infrared Motion Activated Pitch and Yaw Aiming System

Brian Murray and Luke Saunders

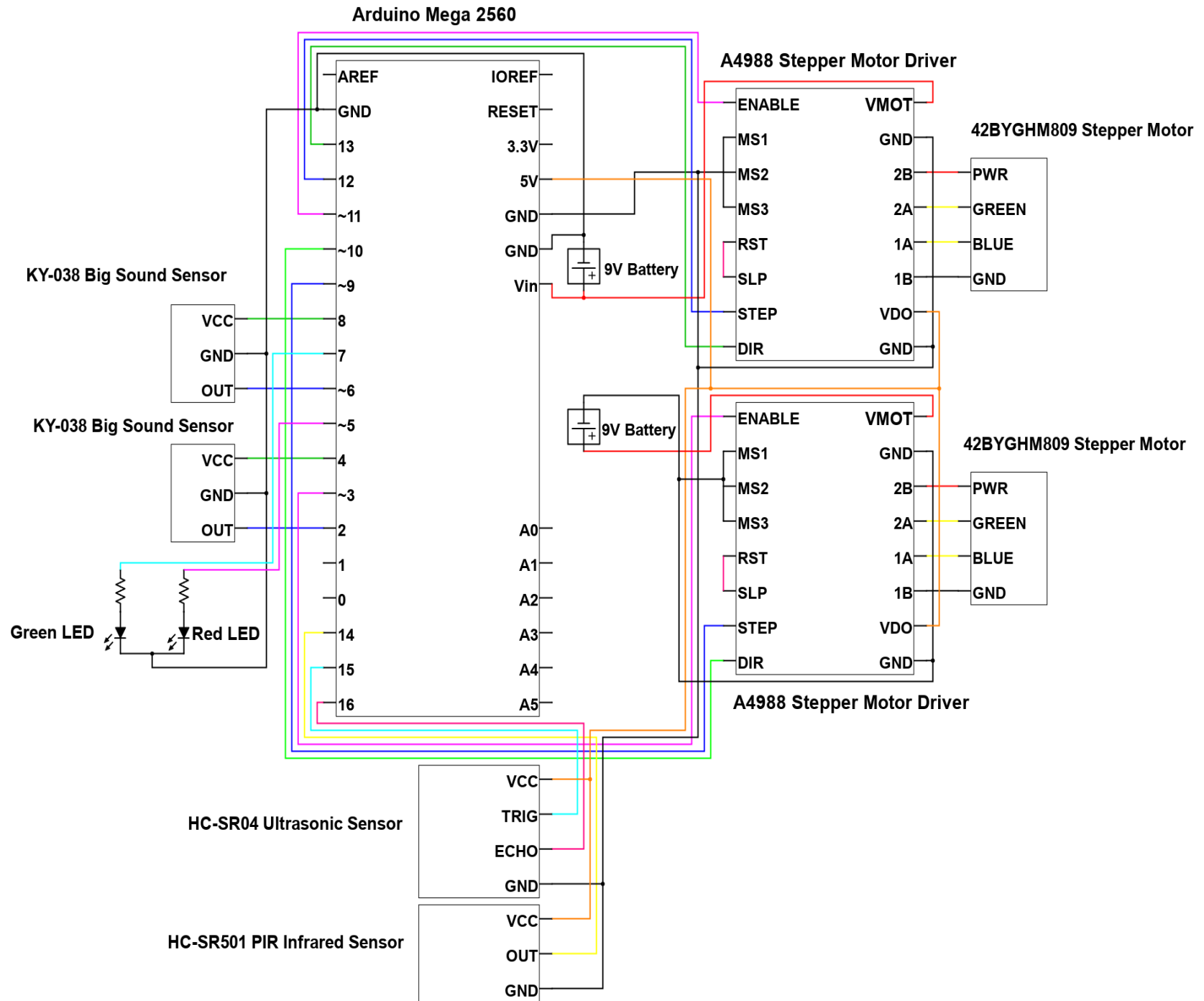
Abstract

- Construct a system that locates a target through sound sensors, uses an infrared motion detector to accurately pinpoint said target, and then determines the optimal firing angle.
- This project has the potential for several applications, such as military training and defense, products relating to recreational entertainment (Nerf, Airsoft, paintball, etc.), and many other fields.

Software Flow Chart and Block Diagram

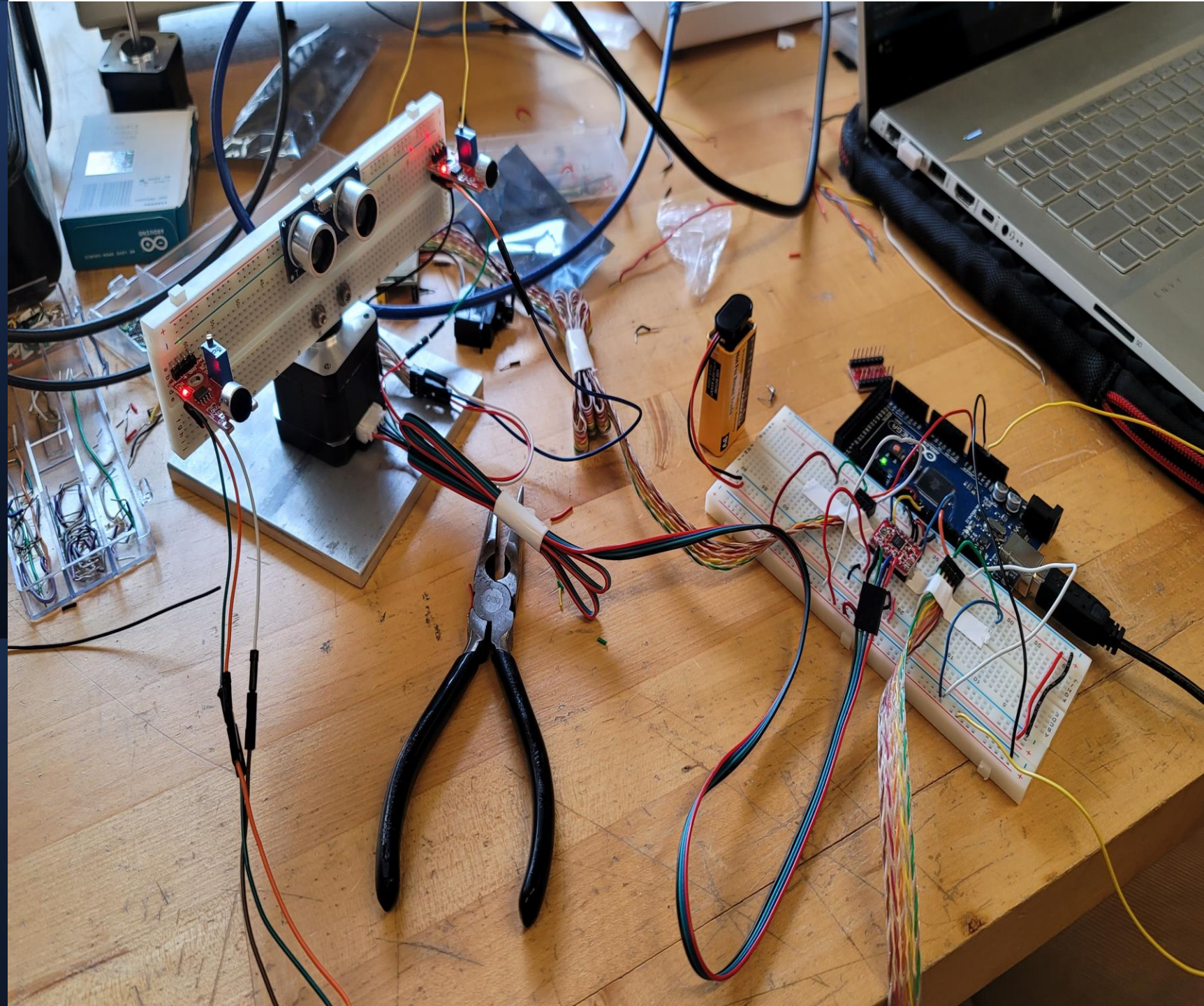


Electronics Schematic



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Physical
Device



Next Steps and Possible Expansions

- Sensor Shortcomings
 - Sensitivity, time delays, and mechanical instability.
- Stepper Motor Power
 - If increased, could make project significantly more compact.
- Adjusting the Aiming Logic
 - Could be repurposed to fit other markets.

Acknowledgements

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- We would also like to thank all of you for coming to our presentation! Please feel free to ask any questions that you may have regarding our project.