

# Fish Feeder

*Revision: RevB.*

*Release Date: 2022xxxx.*

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*Secondary Author(s): N/A.*

*Target Audience: Makers interested in electronics, fish owners.*

*Length: 4 page(s).*

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## Overview

TODO(Sky Hoffert): Write overview.



*Figure 1: Example image. In this case, a Space Shuttle.*

TODO(Sky Hoffert): Write more content.

## Control Unit

In the RevA design, an Arduino was the control unit - this is overkill. In RevB, an ATtiny85 will be the control unit - a properly sized control unit.

## **Appendix A: RevA Notes**

The previous revision had a few issues.

### **Feeder Mechanism Issues**

Occasionally, the feeder mechanism would get stuck. That is, the servo was not powerful enough to continue turning. No food can exit if the RevA mechanism did not turn, causing fish to perish.

As a result, it is imperative that the motor is strong enough to turn.

### **Bad Software**

RevA software would begin a timer to feed at power on, rather than feeding.

There is really no way to debug the feeder mechanism with this software - the software should feed **at power on**.

### **Loose Lid**

The electronics box lid, part number 00092, was a bit of an experiment. I designed in small tabs which were meant to grab cutouts in the chassis, but I believe there was not enough clearance and tabs were not large enough. Screw in lid will most likely always be better for this type of thing.

### **Screw Holes**

Screws used in this project were random salvaged screws of various sizes. Holes in the chassis were too small and caused some screws to break.

The preferred method of fastening is to use heat-set inserts and standard screws, such as #2-56 or #4-40 size screws.

In the same token, use of salvage is great and encouraged. Holes must be sized appropriately for the desired fabrication method. If additive manufacturing is used, screw holes must be slightly oversized to compensate for undersized holes.

## **Appendix B: RevA Diagrams**

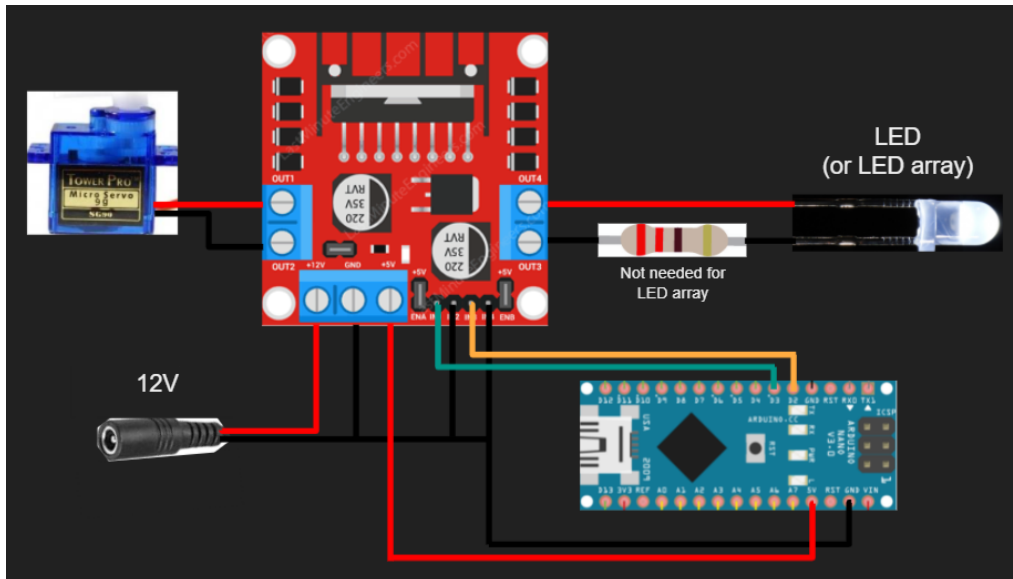


Figure 2: RevA wiring diagram.

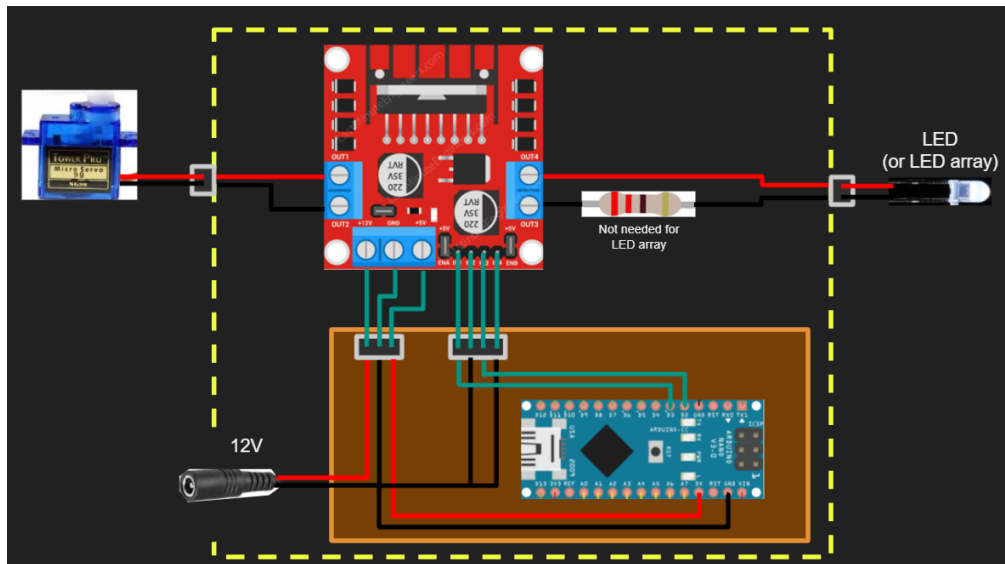


Figure 3: RevA wiring diagram with enclosure.

## Appendix C: RevA Photos

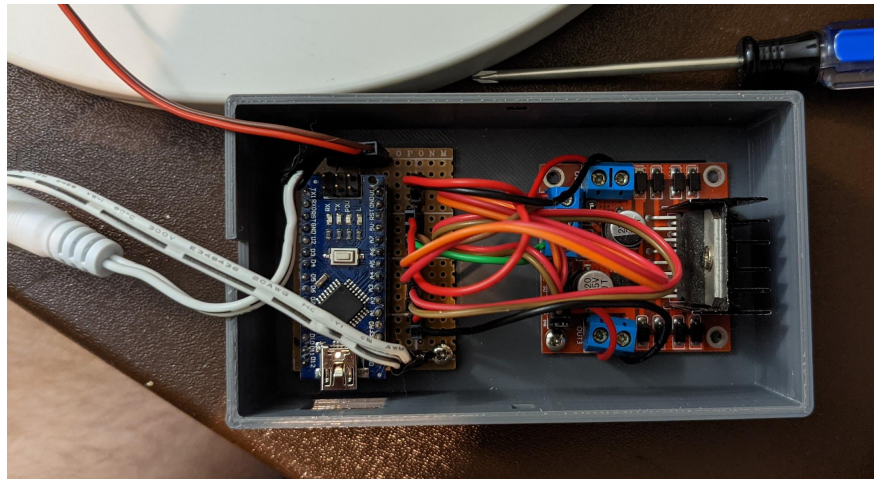


Figure 4: RevA enclosure with electronics.

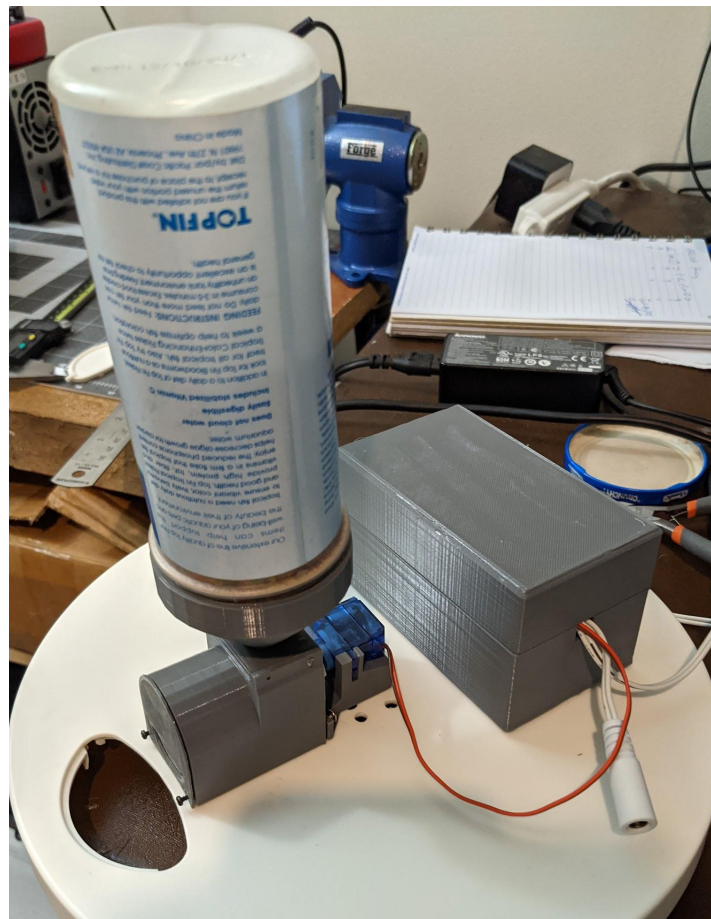


Figure 5: RevA full assembly.