# Fall 22 ME 250: Final Team Slides

Name 1, Name 2o, Name 3, Badhrie Sridhar Section 1 2 December 2022

## Bill of Materials

| Part Name       | Material             | Quantity | Mass(kg) | Total Mass(kg) | EE(MJ/kg) | EC(kgCo2/kg) | EC(kgCO2)   | EE(MJ)      | Vendor            | Price Per Unit/Cost (\$) |
|-----------------|----------------------|----------|----------|----------------|-----------|--------------|-------------|-------------|-------------------|--------------------------|
| Funnel          | Wooden Sheet/Plywood | 1        | 0.680389 | 0.680389       | 15        | 1.07         | 0.72801623  | 10.205835   | <b>Home Depot</b> | 20.33                    |
| FlyWheel        | 3D Printing          | 1        | 0.0003   | 0.0003         | 95.4      | 4.98         | 0.001494    | 0.02862     | -                 |                          |
| Tube/Ramp       | PVC                  | 1/2      | 15.4221  | 7.71105        | 67.5      | 2.56         | 19.740288   | 520.495875  | Home Depot        | 4.21                     |
| Paddle Holder   | Wooden Block         | 1/4      | 0.006932 | 0.027728       | 10.4      | 0.86         | 0.02384608  | 0.2883712   | <b>Home Depot</b> | 7.9                      |
| Paddle Stand    | Wood Sticks          | 3        | 1.6      | 4.8            | 7.4       | 0.58         | 2.784       | 35.52       | Home Depot        | 1.99                     |
| Rubber Band     | Rubber               | 1        | 0.00026  | 0.00026        | 76.24     | 4.57         | 0.0011882   | 0.0198224   | Pantero           | 0.01                     |
| 9 V Battery     | -                    | 1        | 0.0339   | 0.0339         |           | 12           | -           | -           | Amazon            | 6.42                     |
| Mechanism Stand | Wood Sticks          | 3        | 1.6      | 4.8            | 7.4       | 0.58         | 2.784       | 35.52       | Home Depot        | 1.99                     |
| DC Motor        | Arduino              | 1        | 0.1      | 0.1            |           |              | -           | -           | -                 |                          |
| Servo Motor     | Arduino              | 2        | 0.036    | 0.072          |           |              | -           |             | -                 |                          |
| Bread Board     |                      | 1        | 0.079    | 0.079          |           |              |             |             |                   |                          |
|                 |                      |          |          |                |           |              |             |             |                   | -                        |
| TOTALS:         |                      |          |          | 18.304627      |           |              | 26.06283251 | 602.0785236 |                   | 42.85                    |

### Testing

#### Ball launcher: 6 inch testing

With no paddle:

At 40 in 2/10 At 35in 2/10 At 30 in 3/10 At 25 in 3/10

#### With paddle:

With paddle 2 inches above barrel at 25 inches 5/10

With paddle  $\underline{4}$  inches above barrel at  $\underline{25}$  inches  $\underline{2}/\underline{10}$ 

With paddle <u>6 inches</u> above barrel at <u>25 inches</u> 2/10



### Final Build



