**Overall Class Supplies**

|  |  |
| --- | --- |
| 100 Razors | [$10.00](https://www.amazon.com/OEMTOOLS-25181-Razor-Blades-Pack/dp/B000CMFJZ2/ref%3Dsr_1_7?ie=UTF8) |
| 4 Rolls of Blenderm | [$7.00](https://www.amazon.com/BLENDERM-Surgical-Airplane-Waterproof-Hypoallergenic/dp/B072JMJBRS/ref%3Dsr_1_7_a_it?ie=UTF8) |
| 2 Wood Glues | [$5.00](https://www.amazon.com/Gorilla-6202001-Wood-Glue-oz/dp/B00HDM9I3S/ref%3Dsr_1_3?ie=UTF8) |
|  | $25 |

**Day Schedule**

Time permitting: “field trip” to the Gelb Lab where we show off industry-grade fabrication techniques

Students will come in with no knowledge of plane design and be prompted to design and craft a small glider. Examples will be given and after one hour, we will fly them to see which ones work.

|  |  |
| --- | --- |
| 1 – 1/16” x 6” x 12” Balsa Sheet | [$1.25](http://www.specializedbalsa.com/products/balsa_sheets.php) |
| 1 – 1/8” x 12” Balsa Stick | [$0.25](http://www.specializedbalsa.com/products/balsa_sticks.php) |
|  | $2 |

Now, we brainstorm as a class why certain gliders worked and what students think is important in plane design. Following this is a lecture on plane dynamics. Then, students will be guided through the design of a large balsa glider and will start to build their own, optimizing for distance and / or speed. This will take up to two hours. During this time, we will also show off and explain different aeroplanes MIT DBF has made.

|  |  |
| --- | --- |
| 1 – 1/16” x 6” x 36” Balsa Sheet | [$3.80](http://www.specializedbalsa.com/products/balsa_sheets.php) |
| 1 – 1/8” x 24” Balsa Stick | [$0.40](file:///C%3A%5CUsers%5Camira%5CDesktop%5CESP%5CDBF%20Class%5C1%20%E2%80%93%201%5C8) |
|  | $5 |

After most people are done, we will transition to the nearest open space to fly the students’ gliders and they will compete to see how far their gliders go. Take pictures!! This should be a fun hour!