Updated cost estimate for wire chamber construction (4000 Straws).

Assumptions:

1. Building 4000 Straws.
2. Individual gas supply per each chamber.
3. Table is designed and elsewhere, Chamber frames are desgined and built at HUJI.
4. Using 1.3 $/euro.

Straws (based on real quotes received for tubes, wire, and on estimates for others):

|  |  |
| --- | --- |
| Cost per Straw | (In Euro) |
| Straw | 5 |
| Wire | 1 |
| Pins/ABS/Springs | 44 |
| Decoupling Caps | 2 |
| PCBs etc | 8 |
| Plumbing | 5 |
| Total/Straw | 65 |
| **4000 Straws** | **260000** |

Gas Components (based on quotes – in Euros):

|  |  |
| --- | --- |
| Mass Flow Controller | 1260 |
| Mass Meter | 1576.8 |
| Pressure Meter | 2196 |
| Connectors | 500 |
| Total/Set | 5532.8 |
| **Total 5 sets (chambers and mixing)** | **27664** |

Frames (estimates - $):

|  |  |
| --- | --- |
| Design | 3000 |
| Mechanical Construction | 5000 |
| **Total Frames** | **8000** |

Manpower ($):

|  |  |
| --- | --- |
| 2 Grad students for 2 years | 120000 |
| ½ Tech for 2 years | 60000 |
| **Total Manpower** | **180000** |

**Clean room components: 20000$**

**Travel for commissioning: 11600$**

**Shipping to PSI: 6000$**

**Overhead (25% overhead on Manpower): 45000$**

**Total Requested: 480280$**

Note that this is a reduction of ~75k$ from the original request.

The straw components are slightly more expensive (we are both making a bit more than planned and buying in smaller quantities than PANDA, we could go to a smaller number of spares, say 3500 and save another 25K$).

The increase in the straw costs are more than offset by the decrease in the cost of the gas components (I’m getting a good deal) and the large reduction in cost on mechanical design and table construction.