First day of class
- Formed Group:
  - Group member names:
    - Riddh Babikir (214-532-3245)
    - Biju Sreekumar (972-762-1111)
    - Ann Adrikazi (214-223-3218)
- Exchanged phone and emails
- Met Dr. Shoult for the project & he showed us the MIG-27 drone in ELAB.
- Attended AVL meeting ELAB 107 at 12:00.
2nd Meeting
- Dr. Stelmakh advised us to meet Dr. Shoults to discuss the topic of the project.
- Dr. Stelmakh asked us to do the following:
  - Find the room number.
  - Time for the meeting.
  - To find the topic with Dr. Shoults.
  - Split the role for next Friday.
  - Get preliminary articles.

- Went to Dr. Shoults but he had a meeting to attend so he advised us to meet on Monday.
- Emailed Dr. Stelmakh & Dr. Shoults for the time and place to meet.
Oct 10, 2007

- Met in NH 5th floor library.
- Discussed about a specific topic.
- Dr. Shrivasth and Dr. Shoulke and Team 2 were there to discuss a specific topic.
- Dr. Shoulke asked us to work on Micro-Jet Turbine engine.
- Electrically control the fuel so that we can control the thrust of the engine.
- Discussed about where can we find the engine.
- Google "Micro-Jet Turbine".
<table>
<thead>
<tr>
<th>Basic Turbine</th>
<th>Model</th>
<th>Price</th>
<th>Additional Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>JI-1200 MK2</td>
<td>$599.00</td>
<td>$999.00</td>
<td></td>
</tr>
<tr>
<td>JJ-1400</td>
<td>n/a</td>
<td>$799.00</td>
<td></td>
</tr>
<tr>
<td>JJ-1800</td>
<td>n/a</td>
<td>$999.00</td>
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</tr>
</tbody>
</table>

**JI-1200 MK2 Kit**
- Semi auto start ECU with accessories pack: $1038.00
- Full auto start ECU with accessories pack: $1138.00
  (For assembled turbine, add $100.00)
  (Add $110.00 for upgrade pump)

**JJ-1400**
- Semi auto start ECU with accessories pack: $1238.00
- Full auto start ECU with accessories pack: $1338.00

**JJ-1800**
- Semi auto start ECU with accessories pack: $1458.00
- Full auto start ECU with accessories pack: $1558.00
  (Add $135.00 for upgrade pump)
Sep 14th, 2002,

Went to website Google.com and found a $600 turbine engine.
- Contacted the manufacturer, Lentelle, and emailed them. (lennel @ 3dtechvision.com)
- Told to scan link about the price
  - The engine was around $395.00

- Working principle of turbines:

![Diagram of turbine engine]

Cold air in  Compression  Ignition  Thrust

Working Principle of Turbine Engine

![Image of micro turbine designed for DARPA by M-dot]
Simple gas turbine component arrangements.
Sept 21st.

- Obtained reference from Dr. Choultz.
- Had a group meeting today.
- Had to get 10 different company prices for the jet engines.

- Did a little research on google and found out about some website.
  www.jetautavia.com
  www. tamjets.com
  www. aircar.com/jets.htm
  www. simjets.com

- Found a website that was relatively cheaper. Only the price of the jet engine was around $569.

- Seems like a cheaper engine but have to find out about warranty and other parts needed for the project.
JJ 1200 MK2
(Kit or assembled)

Specifications

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>Length</td>
<td>156mm</td>
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<tr>
<td>Diameter</td>
<td>93mm</td>
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<tr>
<td>Weight</td>
<td>850 grams</td>
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<tr>
<td>Idle RPM</td>
<td>40,000</td>
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<tr>
<td>Max RPM</td>
<td>160,000</td>
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<tr>
<td>Thrust @Idle</td>
<td>0.4kg</td>
</tr>
<tr>
<td>Maximum thrust</td>
<td>12.5lbs</td>
</tr>
<tr>
<td>Nominal EGT</td>
<td>63 Deg C</td>
</tr>
<tr>
<td>Fuel</td>
<td>JetA or Kerosene</td>
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<tr>
<td>Lubricant</td>
<td>Turbine oil</td>
</tr>
</tbody>
</table>
Sept 22nd

- Had a group meeting today.
- We discussed about our meeting times.
- Created an audio signal using Labview.
- Received the price list for our jet engines from our vendors.
- Jet-joe offered us the lowest price (base engine only) $599.00.
- Constructed a flowchart system for the entire project.
- Discussed what type of turbine engine we will use.
- We will be doing the final selection.
- Working principle of microjet turbine.
This flowchart shows the basic control operation of the jet engine fuel pump using LabVIEW software in computer.
Audio Signal Generation using LabVIEW

Sine signal graph obtained using LabVIEW