

Meeting Agenda for 9/6

- 1) First team meeting
 - a. Finalize contract
 - b. Finalize contact information
- 2) Finish discussion about the overall project
- 3) Documentation
 - a. CAD FILES
 - b. Papers from previous work
- 4)

Meeting Agenda for 9/15

- 1) modeFRONTIER
 - a. Installed in IEW (timeline)
- 2) GT suite
 - a. What date will we have access to the program
- 3) Client meeting with Odom
 - a. Need to create list of questions for interview
 - b. Direction of the overall project
- 4) ESTECO Presentation
 - a. Webinar at 7 am
 - b. Password?
- 5) Use of engine in ME 430

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Meeting Agenda for 9/22

Client Interview

1) Client interview (Odom)

a. ESTECO

i. Engine Specifications

1. Displacement: 250 CC
2. Cylinder Bore: 81 mm (77mm)
3. Stroke: 48.6 mm (53.6 mm)
4. Rev limit: 17,500 RPM (13,500 RPM)
5. Connecting Rod Length: 105 mm
6. Throttle Body Diameter: < 53mm (40 mm)
7. Inlet Valve Diameter: <=35.5 mm (mm)
8. Exhaust Valve Diameter: <= 27.5 mm (mm)
9. Valve Cam timing: not variable
10. Compression Rate: 15.8 ()
11. Fuel: STD
12. Natural Aspiration

b. SolidWorks Copies

c. Brought up by Arnett

1. Moving the electric motor to mount into the case
2. Front suspension fails tech
3. IC and Electric coupler failed
4. Need to check
 - a. Diff
 - b. Transmission
 - c. Clutch
 - d. Planetary gear set

d. Future of formula car itself?

- i. Competing the same car next year?
- ii. Electric motors on the front for this iteration?
 1. Current suspension could not handle electric motors.
- iii. Realignment of the electric motor and the IC engine

e. What is the future for the current YZ 250?

- i. Will it be in the next formula car?
 1. Dyno rig for this engine
 - 2.
- ii. 40 mm throttle used in testing (engine is still using 32 mm)
 1. Cause of starting problems
 2. Disagree with Rory's thesis that 8 mm is negligible

- f. Ideal deliverables
 - i. GT suite model of engine
 - 1. What engine will benefit the future
 - ii. Fluid model in ANSYS
 - 1. Partner with GT
 - iii. ModeFrontier
 - 1.
 - iv. Full 3D model Engine
 - 1.
 - v. Rhino renders
 - 1.
 - vi. ESTECO presentation
 - 1.
 - vii. Hardware Mods?
 - 1. Intake
 - 2. Exhaust
 - 3. Cam timing (must be fixed though)
 - 4. Port and polish
 - 5. Transmission?
 - 6.
- 2) Client Interview (James)
 - a. Copy of the formula hybrid engine (with modifications)
 - b. Direction (optional)
 - i. If we work alongside James what will be are part
 - 1. GT suite comp is for 250 CC 4 stroke engine

Meeting Agenda for 10/13

- 1) Combustion Program
 - a. Progress update
 - b. Discussion of equations
 - c. Discussion of desired outputs
- 2) Engine Rebuild
 - a. What do we know?
 - b. When can we get it moved?
 - c. Specific timeline for completion
 - d. Intake?
- 3) modeFrontier
 - a. Who is lead?
 - b. When can we work on it together & individually?
 - c. Timeline for completion
- 4) Divided Responsibilities
 - a. What direction is each person going?
 - b. Timeline/deadlines

Meeting Agenda for 11/10

- 1) Connecting rod Design resources
 - a. Do we have any in-house or external lines on con-rod design?
- 2) Piston Design resources
 - a. Do we have any in-house or external lines on piston design?
- 3) Intake and exhaust design resources
 - a. Do we have any in-house or external lines on intake and exhaust design?
- 4) Design Review
 - a. What should we have prepared for our design review?
 - b. Who should we invite to our design review?
 - c. Do we need to prep a PowerPoint for the design review?
- 5) Combustion program
 - a. What variables w/in the program are most beneficial to optimize?
 - b. Do our graphs for max hp and torque seem reasonable?
- 6) FEA of piston and con-rod
 - a. Update on plans for completing preliminary FEA of Stirpe piston
- 7) Renders of piston and con-rod
 - a. Review progress and feedback from last meeting
 - b. Plan of action for furthering the quality of renders
- 8) Logbook reviews

Meeting Agenda for 12/1

- 1) Needed Software for the IEW computers
 - a. Gt-Suite
 - b. any others?
 - c. Can we get Ankit to help with this?

- 2) GT-Suite installation on personal computers
 - a. OVPN file needed
 - b. Does everyone have the download links
 - c. Can someone create an document on how to install as installation is difficult.

- 3) Additional information for competition
 - a. Competition has started, has anyone received any additional information on our design?
 - b.

Meeting Agenda for 12/8

- 1) Decide whom will be working on which parts of the project
- 2) GT-Suite
 - a. Has anyone gotten it installed?
 - b. List of resources needed for installation
 - c. Good tutorials?
 - d.
- 3) Plans for break?
 - a. Whom is going to work on what?
 - b. Communications over break?
 - c. Possible meetings during break?

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Meeting Agenda for 1/17

- 1) How to integrate Track program
 - a. what variables are needed
 - b. how does cornering in it work
 - c. Is there a track we can use as a basis for the program
- 2) Engine optimization
 - a. what are the variables to focus on
 - b. what variables do we fix and not modify
- 3) SAE papers
 - a. Does Dr Odom know any that would be beneficial?
 - b. Research what papers could be useful.

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Meeting Agenda for 1/24

- 1) Roll Down testing for engine friction
 - a. What bike to use
 - b. How to put a sensor on bike
 - c. When would we need the bike by?
- 2) Find cornering speed for motorcycle
- 3) Upcoming events
 - a. Design review: what do we have to show?
 - b. Esteco Bootcamp tomorrow

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Meeting Agenda for 1/31

- 1) Camshaft
 - a. what to use for profile?
 - b. Effective lift?
- 2) How are the designs coming along
 - a. Gt-Suite integration
 - b. Track Program?
 - c. VT-Design?
 - d. Flamingo/Rhino?

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Final Formula

Meeting Agenda – April 15th, 2017

1. Develop PowerPoint deliverable for Esteco
2. Develop Report deliverable for Esteco

Final Formula

Meeting Agenda – April 22nd, 2017

1. Develop PowerPoint deliverable for Esteco
2. Develop Report deliverable for Esteco

Final Formula

Meeting Agenda – April 25th, 2017

1. Discuss PowerPoint deliverable for Esteco
2. Discuss Report deliverable for Esteco

Final Formula

Meeting Agenda – April 29th, 2017

1. Compile and edit report deliverable for Esteco
 - a. Combine separate paper portions to form final deliverable