Every team has a single dream to
"WIN"

TEAM- ACCELERATE

IN SCHOO

APPLICATION OF CAA

PUTER-AIDED ANALYSIS (CAA) IS THE NAME GIVEN TO THE ANALYSIS
OPTIMIZING PARTS OF THE DESIGN PROCESS WHICH, TOGETHER WIT
PUTER AIDED DESIGN AND COMPUTER-INTEGRATED MANUFACTURE, F
HE COMPLETE DESIGN PACKAGE. THE BENEFITS OF INTEGRATING THES
OACHES WITH COMPUTER AIDS ARE IMMENSE; THEY INCLUDE DECRE
TIME, SUPERIOR AND EFFICIENT DESIGNS AN REDUCED MANUFACTU
COSTS.

USE OF CAM AND CNC

TANDS FOR COMPUTER-AIDED MANUFACTURING. CAM SOFTWARE IS USED TO D
AND MANUFACTURE PROTOTYPES, FINISHED PRODUCTS AND PRODUCTION RUNS

COMPUTER-AIDED MACHINE IS THE SOFTWARE TO CONTROL MACHINE TOOLS AND RELATED ON
ANUFACTURING OF WORKPIECES. CAM ALSO REFER TO THE USE OF A COMPUTER TO ASSIST IN
ATIONS OF A MANUFACTURING PLANT, INCLUDING PLANNING, MANAGEMENT, TRANSPORTATION
STORAGE.

ANDS FOR 'COMPUTER NUMERICAL CONTROL CNC MACHINING IS A TERM COM
USED IN MANUFACTURING AND INDUSTRIAL APPLICATIONS.

A *CNC*, OR **COMPUTER NUMERICAL CONTROL MACHINE** IS A HIGH PRECISION TOOL THAT'S CO
OLLED AND **MAKES** REPEATED, ACCURATE MOVEMENTS. IT **DOES** SO BY TAKING COMPUTER-GEN
CODE AND CONVERTING IT WITH SOFTWARE TO ELECTRICAL SIGNALS.

OTHER MANUFACTURING AND ASSEMBLY

DESIGN FOR MANUFACTURING *IS THE METHOD OF DESIGN OF EASE OF MANUFACTURING OF THE COLLECTION OF PARTS THAT WILL FORM THE PRODUCT AFTER ASSEMBLY. DFM IS A TOOL USED TO SELECT THE MOST COST EFFECTIVE MATERIAL AND PROCESS TO BE USED IN THE PRODUCTION IN THE EARLY STAGES OF PRODUCT DESIGN.*

DESIGN FOR ASSEMBLY *IS THE METHOD OF DESIGN OF THE PRODUCT FOR EASE OF ASSEMBLY. DFA IS A TOOL USED TO ASSIST THE DESIGN TEAMS IN THE DESIGN OF PRODUCT AND TRANSITION TO PRODUCTIONS AT A MINIMUM COST, FOCUSING ON THE NUMBER OF PARTS, HANDLING AND EASE OF ASSEMBLY.*

ES

...DFM AND DFA SEEK TO REDUCE MATERIAL, OVERHEAD, AND LABOR COST.
...OTH SHORTEN THE PRODUCT DEVELOPMENT CYCLE TIME.
...DFM AND DFA SEEK TO UTILIZE STANDARDS TO REDUCE COST

...ES:

...OR ASSEMBLY (DFA) CONCERNED ONLY WITH REDUCING PRODUCT ASSEMBLY COST – MINIMIZES NUMBER
... OPERATIONS – INDIVIDUAL PARTS TEND TO BE MORE COMPLEX IN DESIGN.

...OR MANUFACTURING (DFM) CONCERNED WITH REDUCING OVERALL PART PRODUCTION COST – MINIMIZES
...TY OF MANUFACTURING OPERATIONS – USES COMMON DATUM FEATURES AND PRIMARY AXES.
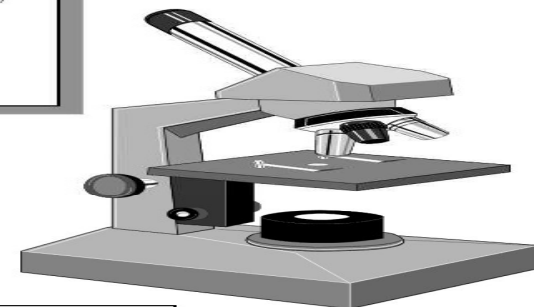
Concept Design

Design for Assembly

Design for Manufacturing

Detailed Design

Optimize Design for Part Count and Assembly

Optimize Design for Production Readiness

TESTING

OUR TEAM TESTED THE CAR BY FLOW DESIGN

EN OUR DRAG CO. EFFICIENT 0.80. THEN, WE WERE VERY UPS
WE DECIDED TO DO SOME CHANGES IN OUR DESIGN. THEN
NGE THE FRONT SPOILERS THEN AGAIN WE TESTED THE CAR
GOT THE DRAG OF 0.40. THEN AGAIN WE MADE SOME CHAN
OUR DESIGN, WE CHANGED THE BACK WINGS. SO WE GOT
DRAG OF 0.30. THEN WERE SATISFIED WITH OUR DESIGN

DESIGN EVOLUTION

TAKE THE REFERENCES FROM GOOGLE AND SOME OTHER W
TES. AFTER SEEING THAT REFERENCES WE DECIDED TO GIVE T
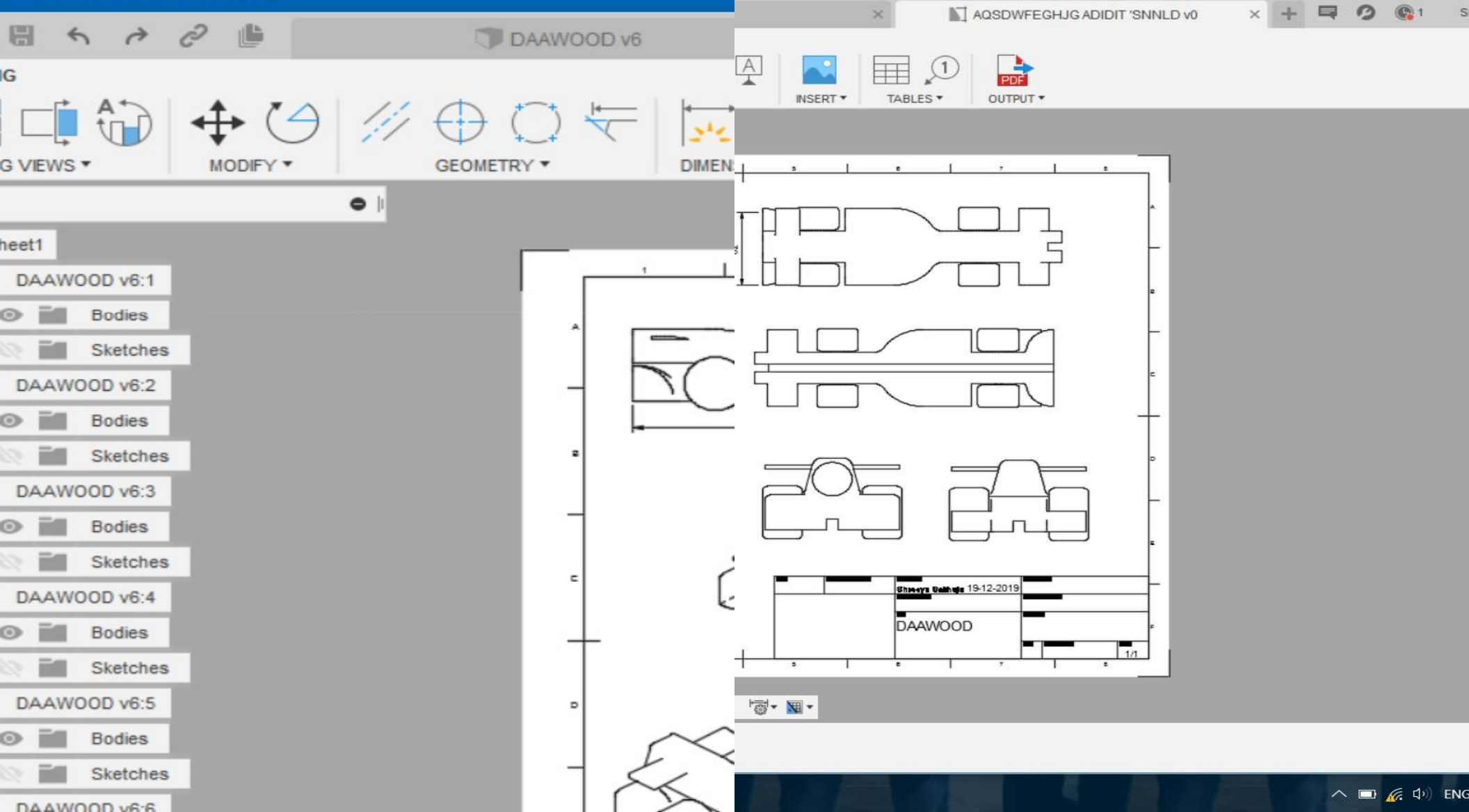CREATE 1 DESIGN TO ALL THE TEAM MEMBERS .
ER COMBINING ALL THAT DESIGN WE MADE A FINAL DESIGN
OUR DESIGN BACK WINGS WERE VERY DIFFERENT.
BUT WHEN WE SEND THE DESIGN FOR MANUFACTURING
BY CNC MACHINE .AFTER FEW DAYS WE RECEIVED THE MAI
RDIND THAT BACK WINGS . SO, WE CHANGED THE BACK W
ID THEN AGAIN SEND THE CAR FOR MANUFACTURING BY CN
MACHINE

ORTHOGRAPHICAL IMAGES
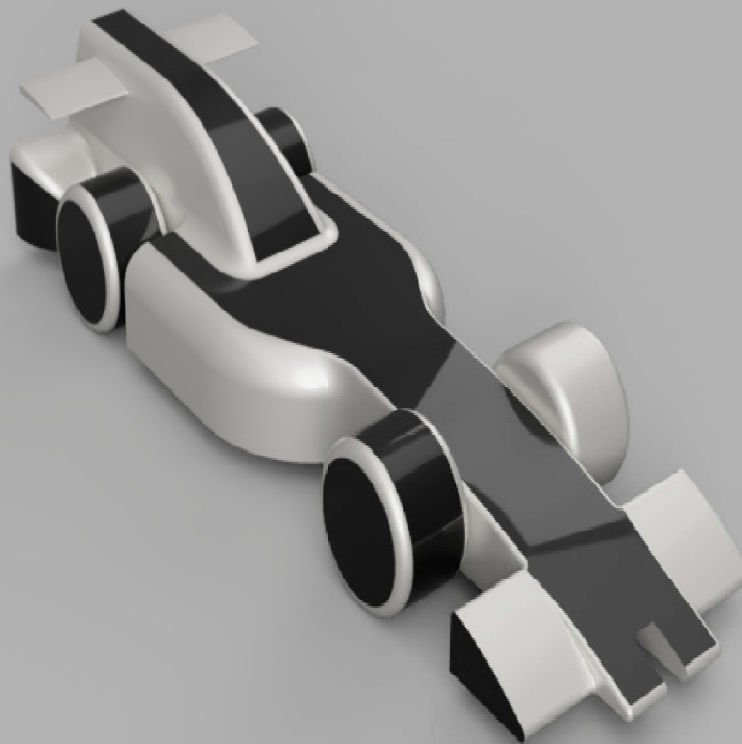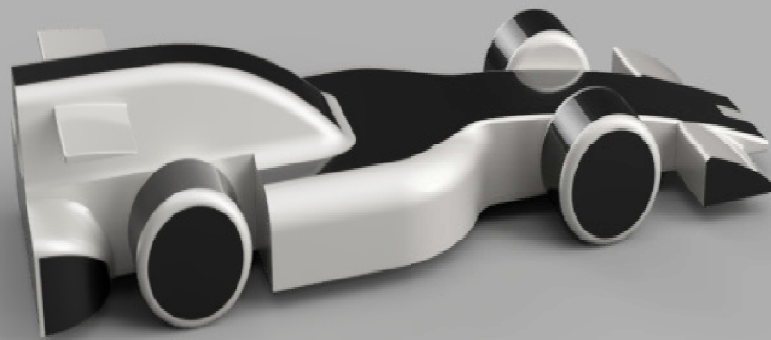
RENDERED IMAGES

RENDERED IMAGE-1

RENDERED IMAGES

RENDERED IMAGE-2

RENDERED IMAGES

RENDERED IMAGE-3