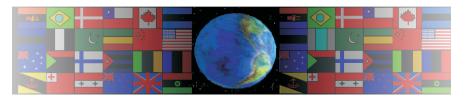
DESIGN PROJECT TEMPLATE

V.Ryan © 2000 - 2008

On behalf of The World Association of Technology Teachers

W.A.T.T.



World Association of Technology Teachers

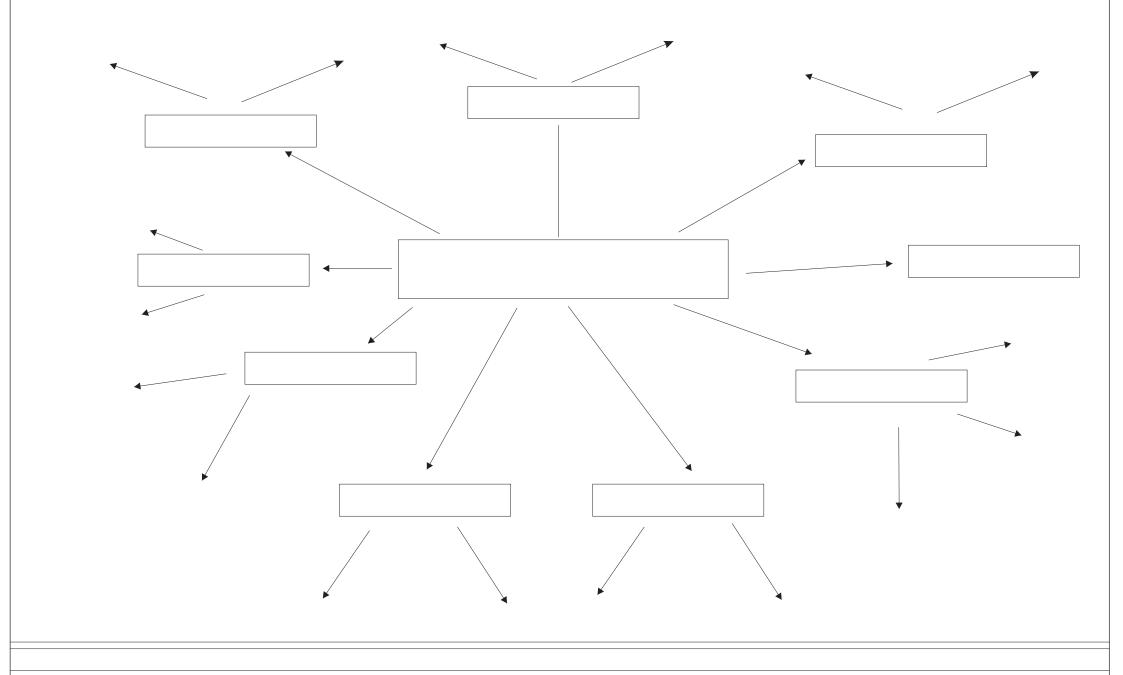
Following are blank design templates. You have only finished a design project if you work through the pages that apply to your subject and type of project. This normally involves completing most of the sheets. Remember to ask your teacher for advice regarding which sheets need completing. Usually the pages are attempted in order as this will take you through the entire design process. It is recommended that you view the website section 'Design Process' (www.technologystudent.com) before attempting each design sheet. The website explains how the sheets can be completed and gives examples.

PROVIDED BY THE WORLD ASSOCIATION OF TECHNOLOGY TEACHERS

MATERIALS CAN BE PRINTED AND DISPLAYED
THEY MUST NOT BE EDITED IN ANY WAY OR PLACED ON ANY OTHER
MEDIA INCLUDED WEB SITES AND INTRANETS

SHOWN BELOW ARE AREAS I NEED TO INVESTIGATE FOR MY PROJECT

RICH PICTURE



DESIGN PROBLEM / CLIENT NEED

DESIGN BRIEF

	h
-	
-	

ANALYSIS

SYNTHESIS

1
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15.
IU

PLANNING THIS TIME CHART SHOWS HOW I PLAN TO USE MY TIME WHEN DESIGNING TIME CHART

KEY: EACH UNIT =

DESIGN STAGE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

RESEARCH SHEET No		EXISTING PRODUCTS
I COLLECTED PICTURES OF EXISTING OR SIN	MILAR PRODUCTS AND HERE ARE	A SELECTION NOTES

RESEARCH SHEET No	
-------------------	--

SAFETY

BELOW ARE SIMPLE DIAGRAMS, WITH NOTES, THAT HIGH-LIGHT AREAS OF SAFETY FOR MY PROJECT

3. 4. 5. 6.	GENERAL SAFETY POINTS I NEED		
3. 4.		1.	2.
	TO REEL IN WIND WHEN DESIGNING		
			1
5. 6.		3.	4.
5. 6.			
5.			
5. 6.			
5.			
5.			
		5.	6.

AVERAGE

RESEARCH SHEET No____

JOINTS AND FIXINGS

HERE ARE SOME WAYS OF JOINING / FIXING MATERIALS THAT MAY PROVE USEFUL FOR MY DESIGNS

1.	2.	3.
4.	5.	6.

RESEARCH SHEET No_____

COLOUR SCHEMES

BELOW IS MY RESEARCH ON COLOUR SCHEMES. I MAY FIND THAT THIS WILL HELP ME DEVELOP A COLOUR SCHEME FOR MY FINAL DESIGN

1.	2.
COLOUR LEAFLET / SAMPLE	

MATERIALS - WOODS AND METALS

WOOD	PROPERTIES	USE IN MY PROJECT
METALS	PROPERTIES	USE IN
		MY PROJECT

SUMMARY OF WOODS AND METALS

RESEARCH	SHEET	No
----------	-------	----

MATERIALS - PLASTICS / OTHER MATERIALS

PLASTICS	PROPERTIES	USE IN MY PROJECT
OTHER MATERIALS	PROPERTIES	USE IN MY PROJECT

SUMMARY OF PLASTICS AND OTHER MATERIALS

ESEARCH SHEET No JESTION(S) ASKED		QUESTIONNAIRE/S	
EET GROUP ASKED TABL	E OF RESULTS	PICTOGRAM/GRAPH	
MMARY OF FINDING:)		

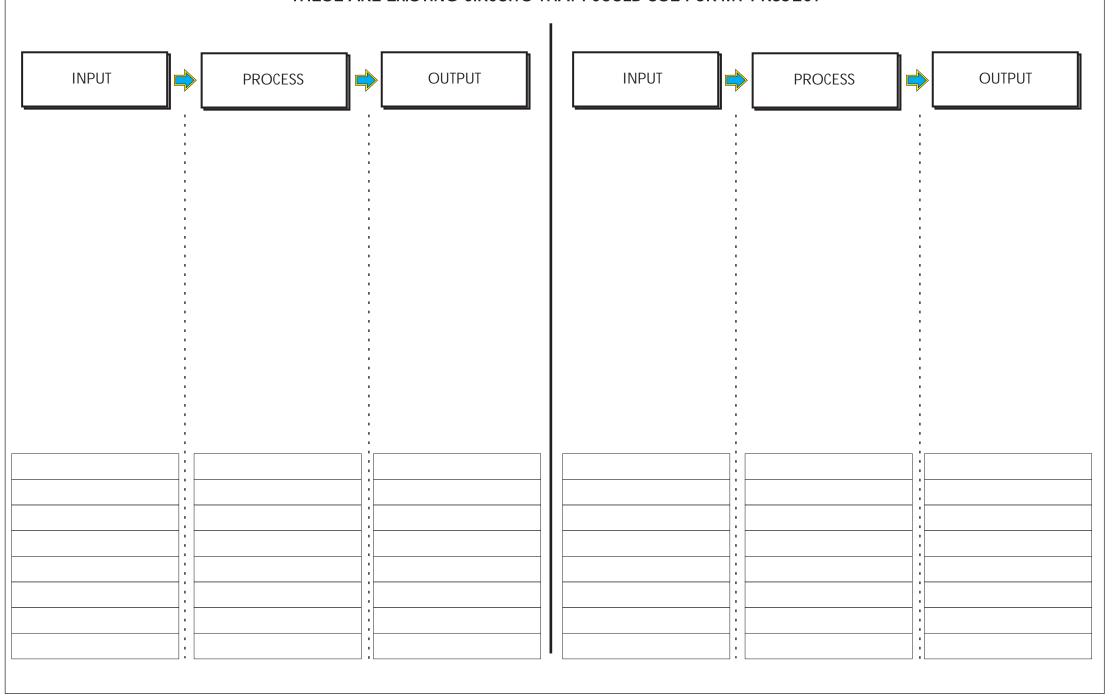
RESEARCH SHEET No	HERE IS A SYSTEMS DIAGRAM REPRESENTING MY PROJECT	SYSTEMS DIAGRAM
INPUT	PROCESS	OUTPUT

RESEARCH SHEET No	INDIVIDUAL RESEARCH
AREA OF RESEARCH :	

RESEARCH SHEET No____

EXISTING CIRCUITS

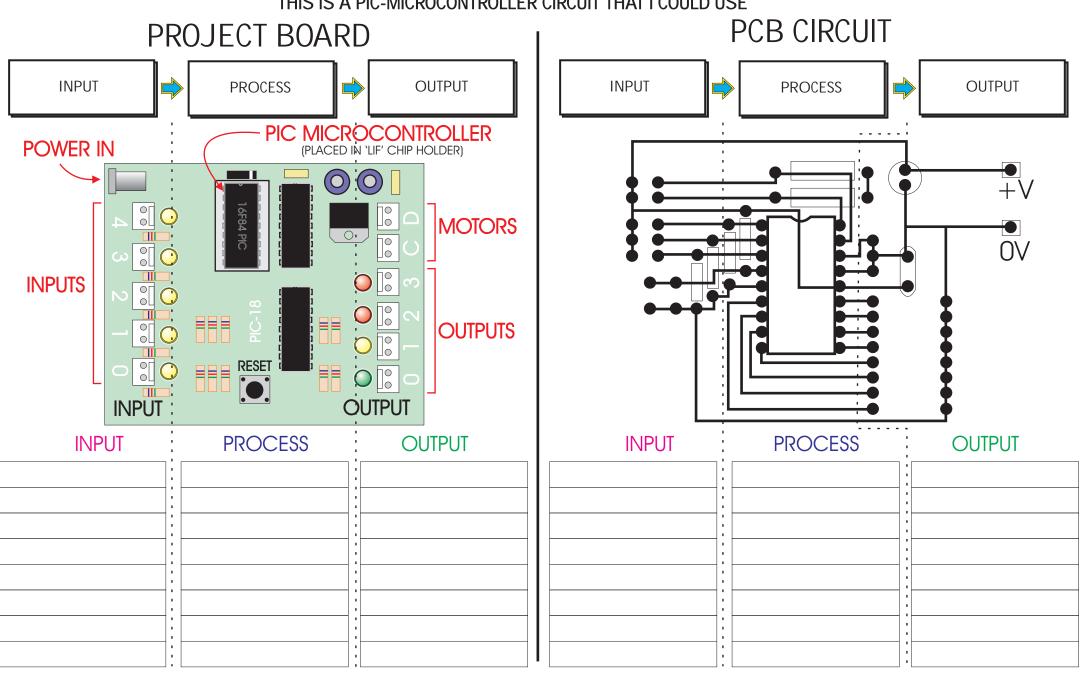
THESE ARE EXISTING CIRCUITS THAT I COULD USE FOR MY PROJECT



RESEARCH SHEET No_____

EXISTING CIRCUITS

THIS IS A PIC-MICROCONTROLLER CIRCUIT THAT I COULD USE

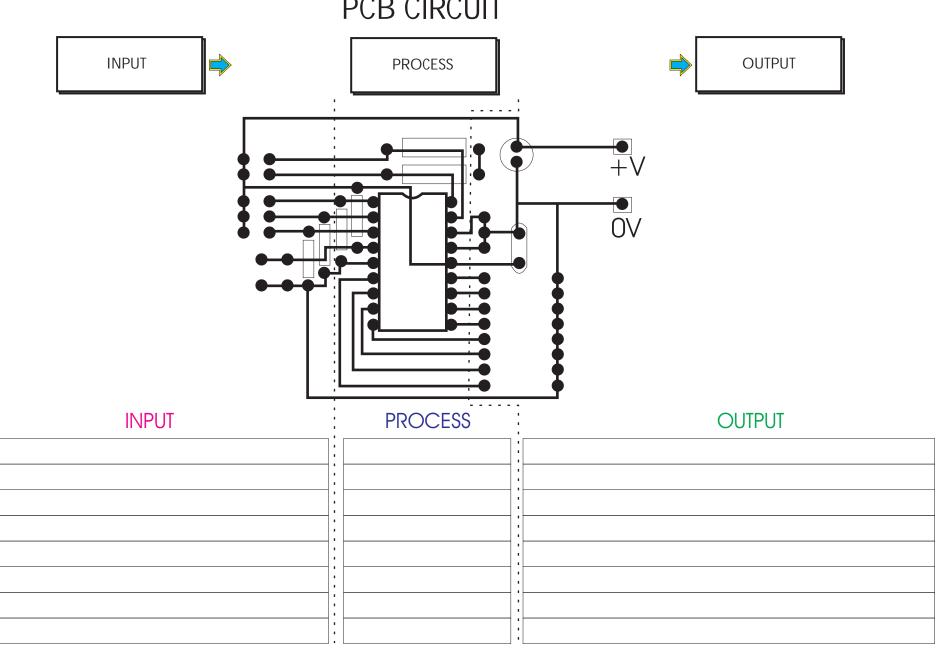


RESEARCH SHEET No____

MY PIC-MICROCONTOLLER

HOW I COULD USE A PIC-MICROCONTROLLER

PCB CIRCUIT

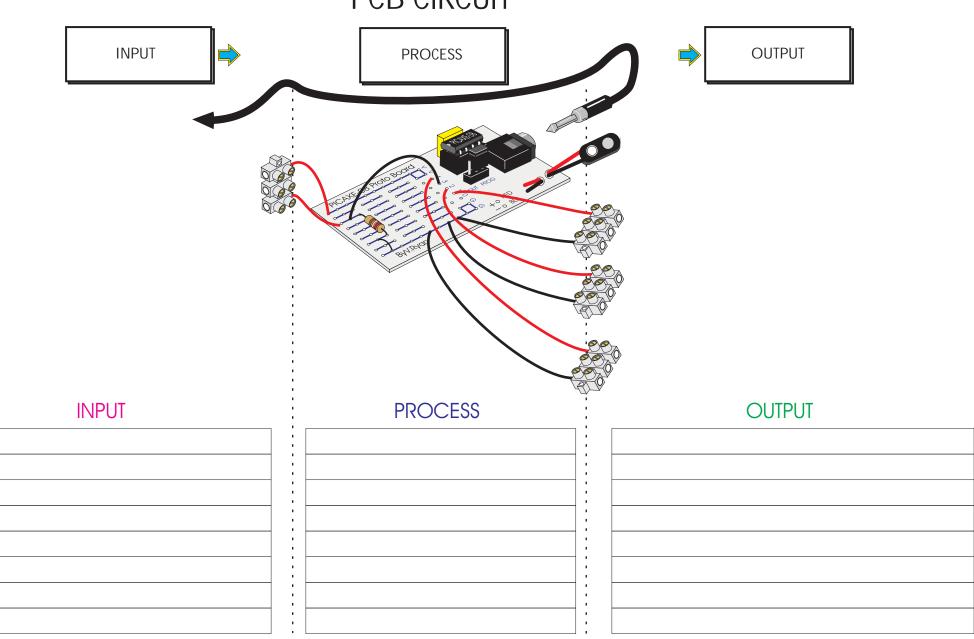


RESEARCH SHEET No_____

MY PIC-MICROCONTOLLER

HOW I COULD USE A PIC-MICROCONTROLLER

PCB CIRCUIT



RESEARCH SHEET No_____

MY PIC-MICROCONTOLLER

HOW I COULD USE A PIC-MICROCONTROLLER

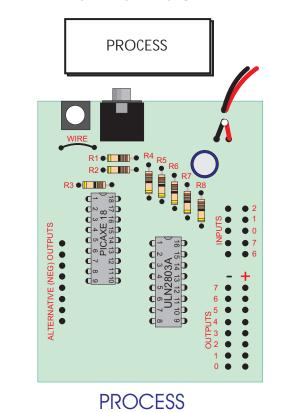
PCB CIRCUIT

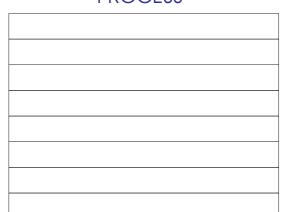




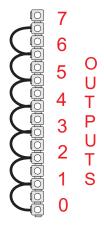


INPUT









OUTPUT

SPECIFICATION

MY SPECIFICATION

I HAVE LISTED MY **SPECIFICATION IN** ORDER. MY SPECIFICATION IS THE RESULT OF RESEARCH WORK

IDEAS SHEET No____

IDEA No	IDEA No	
IDEA NO		
		IDEA No

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IDEAS SHEET No	IDEAS
	1527.6

COMPUTER AIDED DESIGN SHEET No____

	-	•	
D	E	A	S

This sheet shows how I could use computer aided design and manufacture.

TECHNIQUE:	TECHNIQUE:	
TECHNIQUE:	TECHNIQUE:	

SHEET No____

HANDLES / LEVERS

This sheet shows a selection of handles or levers that I could use to alter the angle of my design.

HANDLE / LEVER 1:	HANDLE / LEVER 2:
HANDLE / LEVER 3:	HANDLE / LEVER 4:

COMPUTER AIDED DESIGN SHEET No____

 			0
\bigcap	F	Д	S

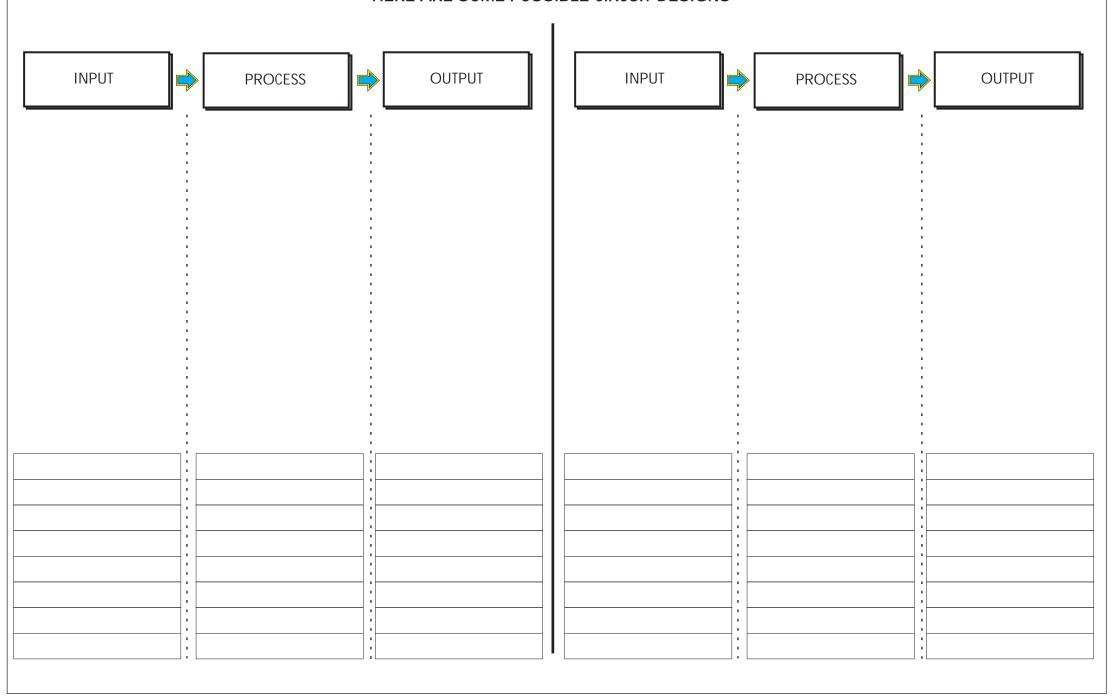
This sheet shows how I could use computer aided design and manufacture.

TECHNIQUE:	TECHNI	QUE:	

IDEAS SHEET No____

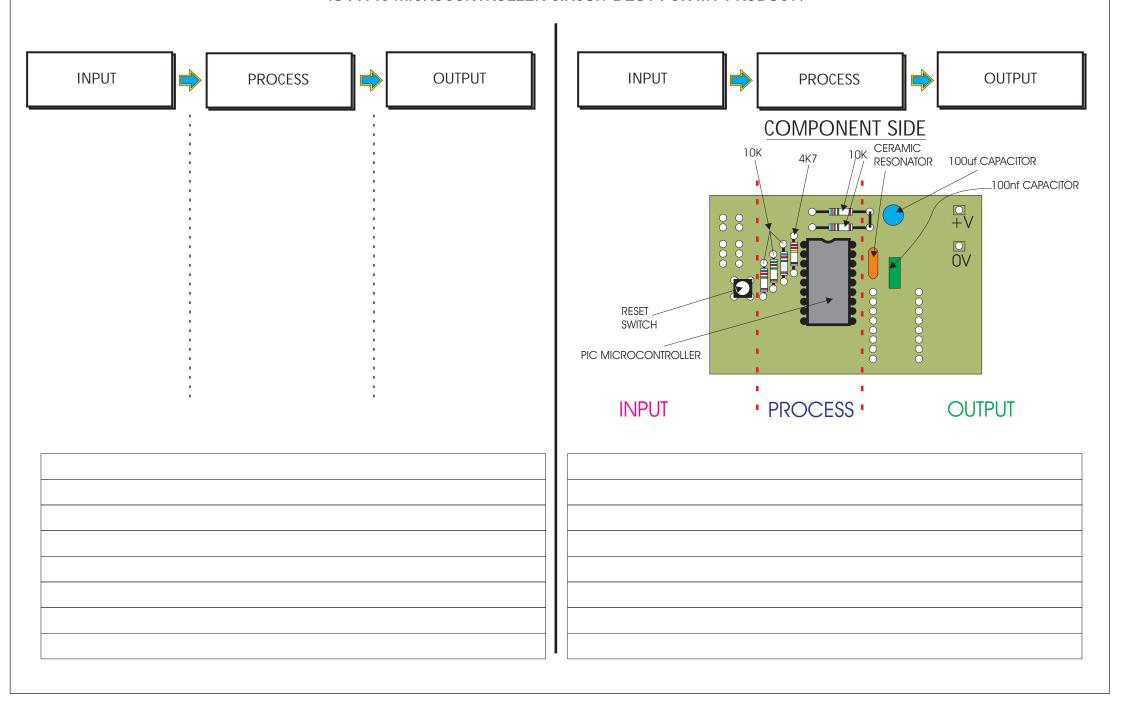
CIRCUIT DESIGNS

HERE ARE SOME POSSIBLE CIRCUIT DESIGNS



CIRCUIT DESIGNS

IS A PIC MICROCONTROLLER CIRCUIT BEST FOR MY PRODUCT?



IDEAS SHEET No____

Flowchart and Program

MY PROGRAM AND FLOW CHART

FLOWCHART

DESCRIPTION

DEVELOPMENT SHEET NO

V.Ryan © 2000 - The World Association of Technology Teachers OF VFI OPMENT

BELOW IS MY BEST IDEA. I HAVE IDENTIFIED ALL THOSE ASPECTS THAT NEED DEVELOPING FURTHER. ON THE FOLLOWING PAGES I HAVE 'DEVELOPED' EACH OF THE ASPECTS				
ON THE FOLLO	WING PAGES I HAVE DEVELOPED EACH OF	THE ASPECTS		
	MY BEST IDEA - TO BE DEVELOPED			

DEVELOPMENT SHE	ET No ASPECT	V.Ryan © 2000 - The World Association of Technology Teachers DEVELOPMENT
BELOW IS AN ASPEC	Γ OF MY BEST DESIGN THAT I HAVE DEC	DED TO IMPROVE AND DEVELOP FURTHER
	<u> </u>	

DEVELOPMENT SHEET No____ ASPECT - MECHANISMS DEVELOPMENT HERE ARE A NUMBER OF MECHANISMS THAT MAY BE USED AS PART OF MY PROJECT **MECHANISM 1**: MECHANISM 2: **MECHANISM 3:** MECHANISM 4:

DEVELOPMENT SHEET No HERE ARE A NUMBER OF MECHA		V.Ryan © 2000 - The World Association of Technology Teacher DEVELOPMENT Y PROJECT
SELECTED IDEA	MECHANISM 1:	
MECHANISM 2:	MECHANISM 3:	

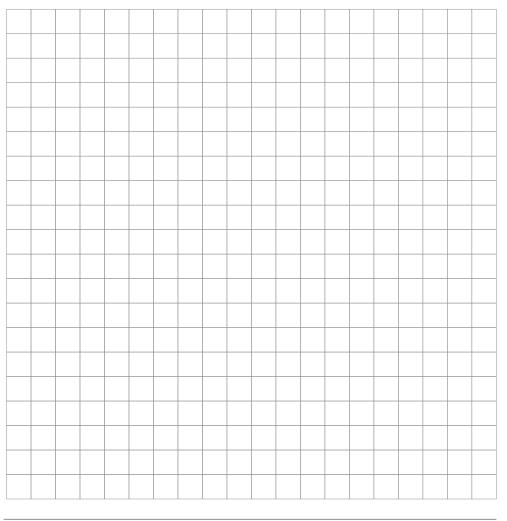
	ASPECT - PREPARATION FOR CAD DEVELOPMENT OF THE WORLD ASSOCIATION OF TECHNOLOGY TO PRODUCE USING CAD SOFTWARE AND THEN MANUFACTURE USING CAM	achers
DESIGN ONE	DESIGN TWO	1

V.Ryan © 2000 - The World Association of Technology Teachers
DEVELOPMENT
MANUFACTURE USING CAM

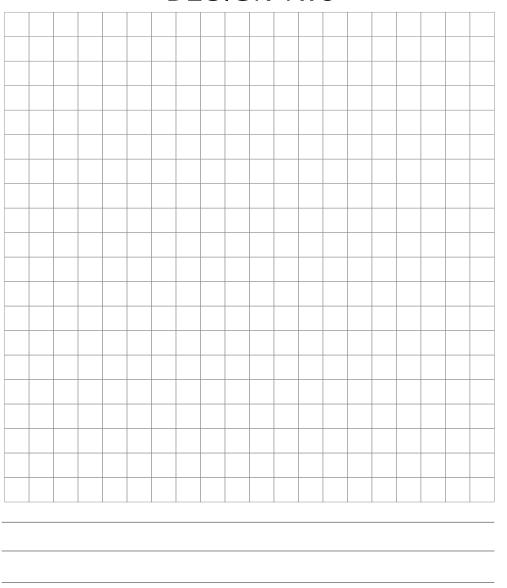
DEVELOPMENT SHEET No____ ASPECT - Lid / Top Design

HERE ARE TWO HAND-DRAWN DESIGNS THAT I INTEND TO PRODUCE USING CAD SOFTWARE AND THEN MANUFACTURE USING CAM

DESIGN ONE



DESIGN TWO



DEVELOPMENT SHEET No	ASPECT -	COMPUTER AIDE	D DESIGN	V.Ryan © 2000 - The World Association of Technology Teachers DEVELOPMENT
HERE ARE MY	TWO DESIGNS D	RAWN USING CAD SO	FTWARE	
DESIGN ONE			DESIGN	TWO

DEVELOPMENT SHEET No_____

MY PROJECT AND SAFETY

THE LAWS GOVERNING SAFETY AND THE CONSUMER ARE LISTED BELOW. BELOW IS A SUMMARY, CLEARLY STATING HOW THE LAW AFFECTS MY DESIGN

THE LAW	HOW THE LAW AFFECTS MY PRODUCT	SAFETY SYMBOLS
The Consumer Safety Act is mainly concerned with safety especially when considering clothing, toys and electrical goods. The government can ban dangerous goods with this Act.		FOR MY PROJECT
The Trades Description Act protects the customer against false claims. For instance if a manufacturer says that a product will increase intelligence and it obviously fails to do so - then the manufacturer can be taken to court. The Trades Descriptions Act tries to ensure than manufacturers claims about their products are true.		
The Sales of Goods Act is aimed at ensuring that goods work in the way they should and that they last a reasonable amount of time.		
Fire Safety Regulations - aim to protect the public against poor quality furniture that could be a fire hazard. The aim is to stop the sale of furniture that is easily set alight and give off dangerous toxic fumes.		

RECYCLED PARTS / COMPONENTS:	PRODUCTRECYCLING	:	V.Ryan © 2000 - The World Association of Technology Te
		<u> </u>	
NON TOXIC MATERIALS:			ENVIRONMENTALLY FRIENDLY MANUFACTURE
PACKAGING:			PCB/CIRCUIT BOARD:
SYMBOLS:	REDUCING M	MATERIAL WASTE:	ENERGY CONSUMPTION:
ENVIRO	NMENTAL FACTO	ORS - INCLUDING E	ELECTRONICS

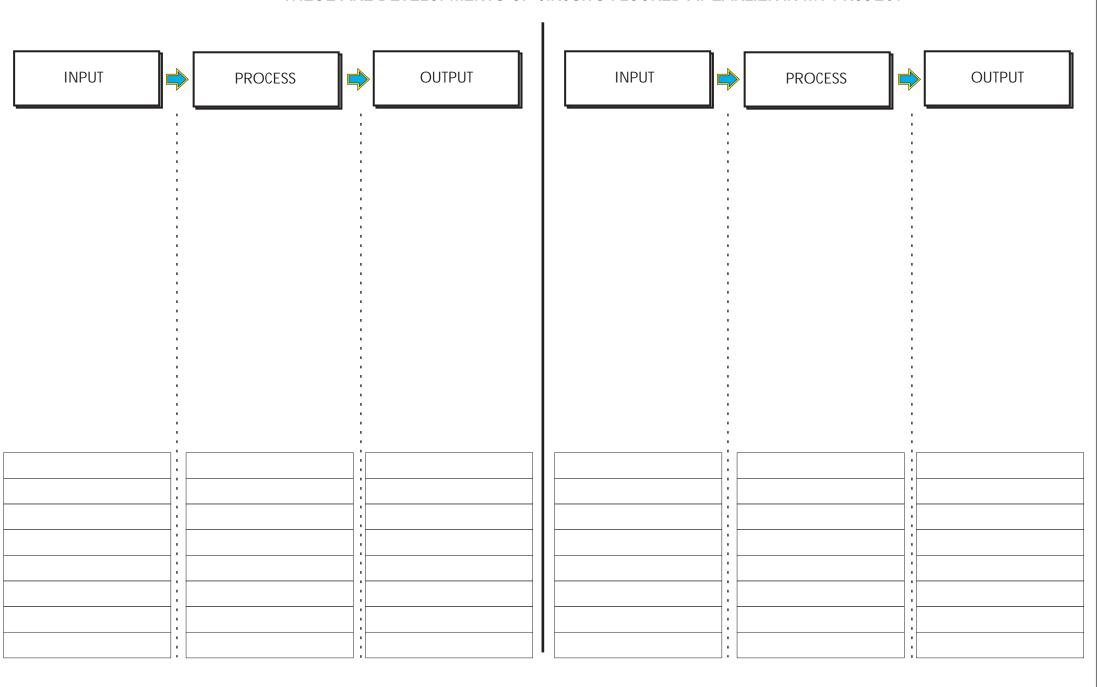
	PRODUCT RECYCLING:		V.Ryan © 2000 - The World Association of Technology Tea
RECYCLED PARTS / COMPONENTS:			SUSTAINABLE FORESTS:
		*	
ON TOXIC MATERIALS:			ENVIRONMENTALLY FRIENDLY MANUFACTURE
PACKAGING:			REDUCING MATERIAL WASTE:
	₩		
	SYMBOLS:		

ENVIRONMENTAL FACTORS

DEVELOPMENT SHEET No_____

DEVELOPMENT

THESE ARE DEVELOPMENTS OF CIRCUITS I LOOKED AT EARLIER IN MY PROJECT



DEVELOPMENT SHEET No_____

COSTING MY PROJECT

BELOW I HAVE SET OUT THE COST OF MATERIALS AND COMPONENTS

				I		
PART	QUANTITY	DESCRIPTION	UNIT COST	DISCOUNT	TOTAL	
NUMBER						
						NAME AND ADDRESS OF SUPPLIER
						ALTERNATIVE SUPPLIER
				TOTAL		
			TOTAL			
			IUIAL	PLUS VAT		

PLANNING - USE OF TOOLS / EQUIPMENT AND MACHINERY

I intend to use the following equipment during the design and manufacture of my project.

EQUIPMENT	INTENDED USE	COST	EVALUATION

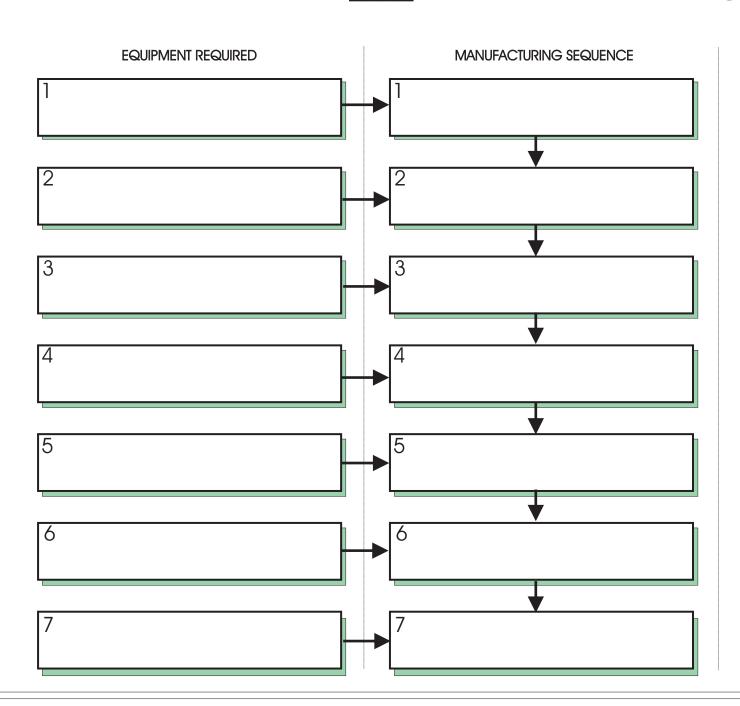
1.	2.	3.	V.Ryan © 2000 - The World Association of Technology Teacher
4.	5.	6.	PHOTOGRAPH
NAME N	MODEL MAKING - SI	EQUENCE DRAWING	DATE

DEVELOPMENT SHEET No____

MODEL EVALUATION

Below is an evaluation of my model. After making and testing the model I have decided that there may be a need for alterations / changes to the original design.

DESCRIBE POSSIBLE CHANGES TO YOUR DESIGN	GENERAL MODEL EVALUATION
Changes to the overall shape and size:	WHAT I CONSIDER TO BE GOOD POINTS
Changes to the materials to be used:	
Other changes. E.G. Ergonomics, colour scheme and texture, finish, appearance, function, costing etc	VIEWS OF OTHER PEOPLE (ESPECIALLY POTENTIAL CUSTOMERS)



QUALITY CONTROL CHECK

PLANNING THIS TIME CHART SHOWS HOW I PLAN TO USE MY TIME WHEN MAKING TIME CHART

KEY: EACH UNIT =

MANUFACTURING STAGE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

PHOTOGRAPH OF TESTING	TABLE OF RESULTS
DESCRIPTION OF TESTING	
	SUMMARY

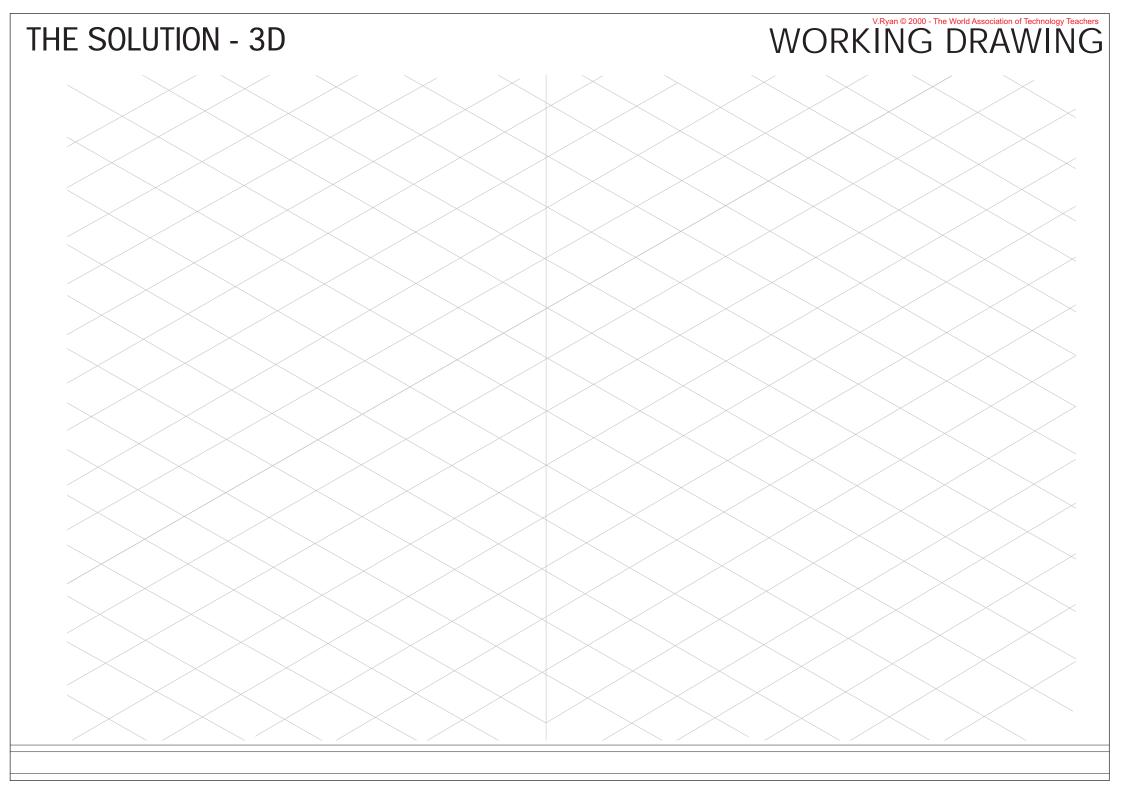
		V.Ryan © 2000 - The World Association of Technology Teacher
THREE DIMENSIONAL DRAWING	EXPLODED VIEW	
<u>NOTES</u>	<u>NOTES</u>	
		DATE
NAME	EVALUATION	DATE

THE SOLUTION

V.Ryan © 2000 - The World Association of Technology Teachers WORKING DRAWING

BASE LINE

PART No	No OFF	DESCRIPTION	MATERIAL	DIMENSIONS	FINISH
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					



THE SOLUTION

V.Ryan © 2000 - The World Association of Technology Teachers EVALUATION

GOOD POINTS

PRODUCT PHOTOGRAPHS

IMPROVEMENTS