

# PROTOTYPE MODELLING – TEST PROJECT

India Skills 2018\_TP45\_IN\_EN





# INTRODUCTION TO TEST PROJECT DOCUMENTATION

The Test Project for India Skills 2018 is to create a prototype model of “COFFEE MAKING MACHINE”. The time limit for completion of this Test Project is Fifteen (15) hours.

## CONTENTS

This Test Project proposal consists of the following documentation / files:

- 1) India Skill 2018\_TP 45\_XX\_1

## INTRODUCTION

Now a day's machines have become a part of human life. In the developed countries almost, each and every activity will be done one or the other way with the help of machines. In developed countries more than 80% of days activities will completed by using machines. Hence the Proto Type Model of Coffee Making machine is one among those thinking in which the design is made based on the requirement of the customer and functional requirement based on the working condition. It consists of single part.

- 1) Coffee Making Machine

## DESCRIPTION OF PROJECT AND TASKS

This test Project consists of following Four (4) Modules and tasks.

### **B: 3D – CAD Design**

#### Task

1. Create a Coffee Making Machine, in a file with proper constraints.

### Important Notes

1. The name of the file for saving the file in the cloud should be by the code which is allocated for you followed by competitor's number. Eg: India Skills 2018\_XX\_YY where XX is competitors code and YY is Competitors Number.

### Submission of Module

- At end of three (3) hours after the start time, submit following items.
  1. 1 Component prepared in a file saved in the cloud as well as on the desktop.

## **C. Preparation of Drawings**

#### Task

1. Create 2D Technical drawing of Coffee Making Machine.



## Important Notes

1. The name of the drawing file for saving the file in the cloud should be by the code which is allocated for you followed by competitor's number. Eg: XX\_YY where XX is competitors code and YY is Competitors Number.

## Submission of Module

At Three (3) hours after the start time, submit the following items.

1. 2D Technical Drawing of Coffee Making Machine

## D. Modelling

### Task

- Create Prototype model of Coffee Making Machine

## Important Notes

- Parts mentioned by Acrylic need to be produced by given acrylic colour glass.

## Submission of Module

No Parts to be submitted at the end of this Module

## D. Painting & Decorating:

### Task

- Paint the parts produced in the previous module with the colours given in 3D Designing.

## Important Notes

- Parts mentioned by Acrylic need to be produced by given acrylic colour glass.

## Submission of Module

Submit the Model at the end of Fifteen(15) Hours in a dried condition.

## INSTRUCTIONS TO THE COMPETITOR

Competitors must complete Module B to E continuously, in alphabetical order.

The submission deadlines of Modules are as follows.

Module B & Module C: Three (3) hours after the start of the Competition.

Module D & Module E: Fifteen (15) hours after the start of the competition.



**Outputs for each Module are as follows.**

Module B: Completed 3D drawing file of Coffee Making Machine.

Module C: Completed Technical Drawing file of Coffee Making Machine

Module D & E: Proto Models of Coffee Making Machine in Painted Condition.

## EQUIPMENT, MACHINERY, INSTALLATIONS AND MATERIALS REQUIRED

ITEM	QUANTITY	MATERIAL	DESCRIPTION	NOTES
Coffee Making Machine	1 / competitor	Chemical Wood	500 X 220 X 50 mm	
Acrylic Glass	1 / competitor	Non-transparent (Black/Red/Yellow/White/Blue)	100 X 100 X 2 mm	

## MARKING SCHEME

### **Module A – Work Organisation & Management - 20 % Measurement 80% Judgement (5 Marks)**

A.1 Workplace Safety & Personnel Safety (Judgement) – 3 Marks

A.2 Good House Keeping (Judgement) – 1 Mark

A.3 Management of Manufacturing Process (Measurement) – 1 Mark

### **Module B – 3D CAD Design - 100 % Measurement (20 Marks)**

B.1 Completeness of 3D Drawings (Measurement) – 18 Marks

B.2 Compare the original solids to the designed solids by CAD System (Measurement) – 2 Marks

### **Module C – Preparation of drawing - 100% Measurement (10 Marks)**

C.1 Completeness of 2D Drawings, Views and Sections – 7 Marks

C.2 Dimensions completed – 3 Marks

### **Module D – Modelling / Manufacturing – 80% Measurement 20% Judgement (55 Marks)**

D.1 Conformity to Specifications (Measurement)– 43 Marks

D.2 Conformity to specified Dimensions (Judgement) – 10 Marks

D.3 Conformity to 2D Drawings (Measurement) - 2 Marks

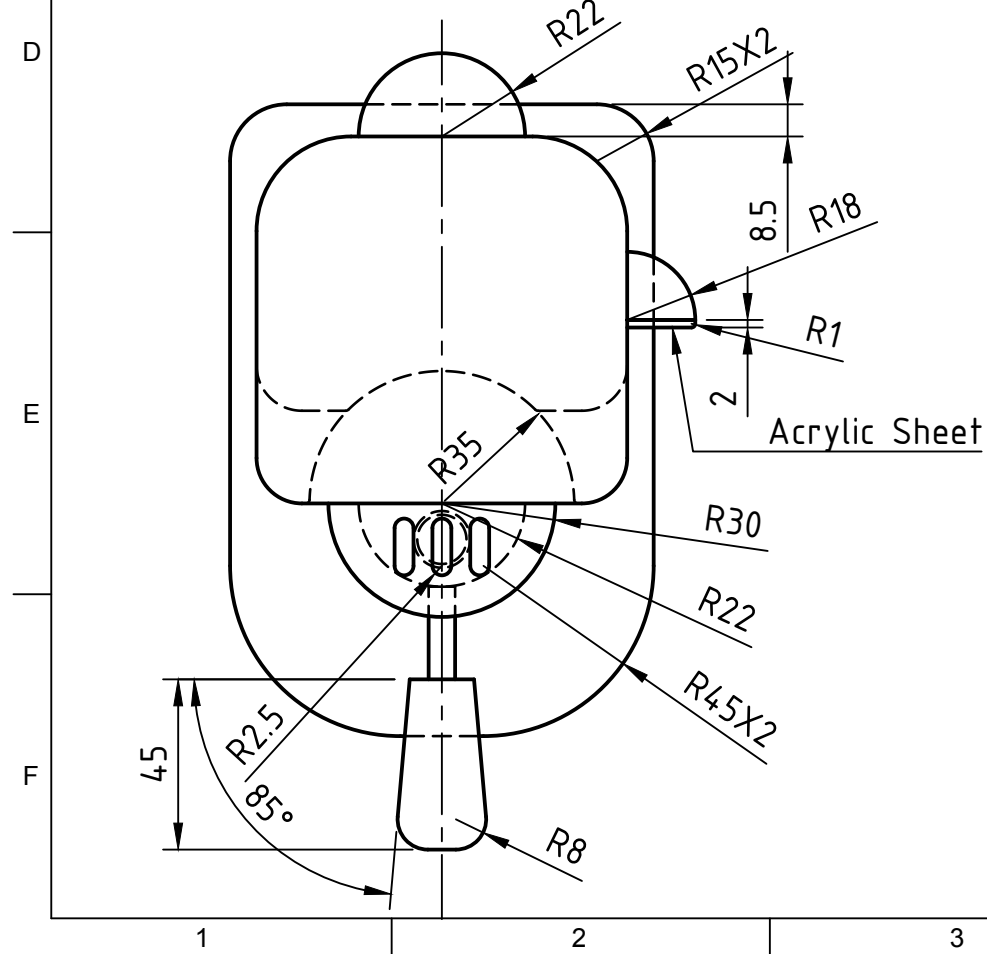
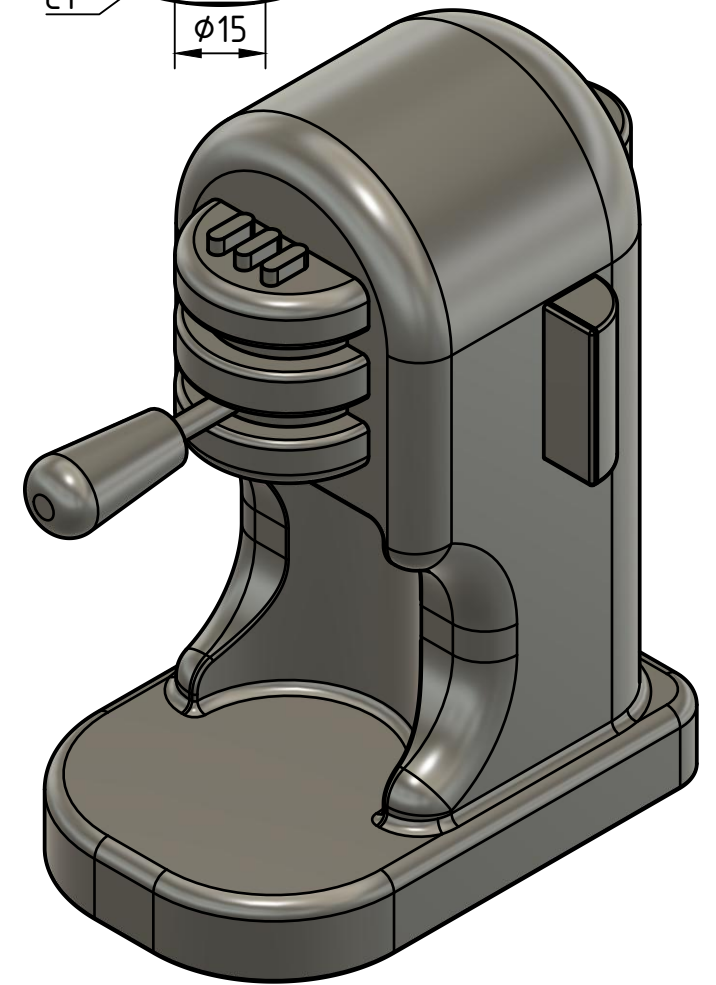
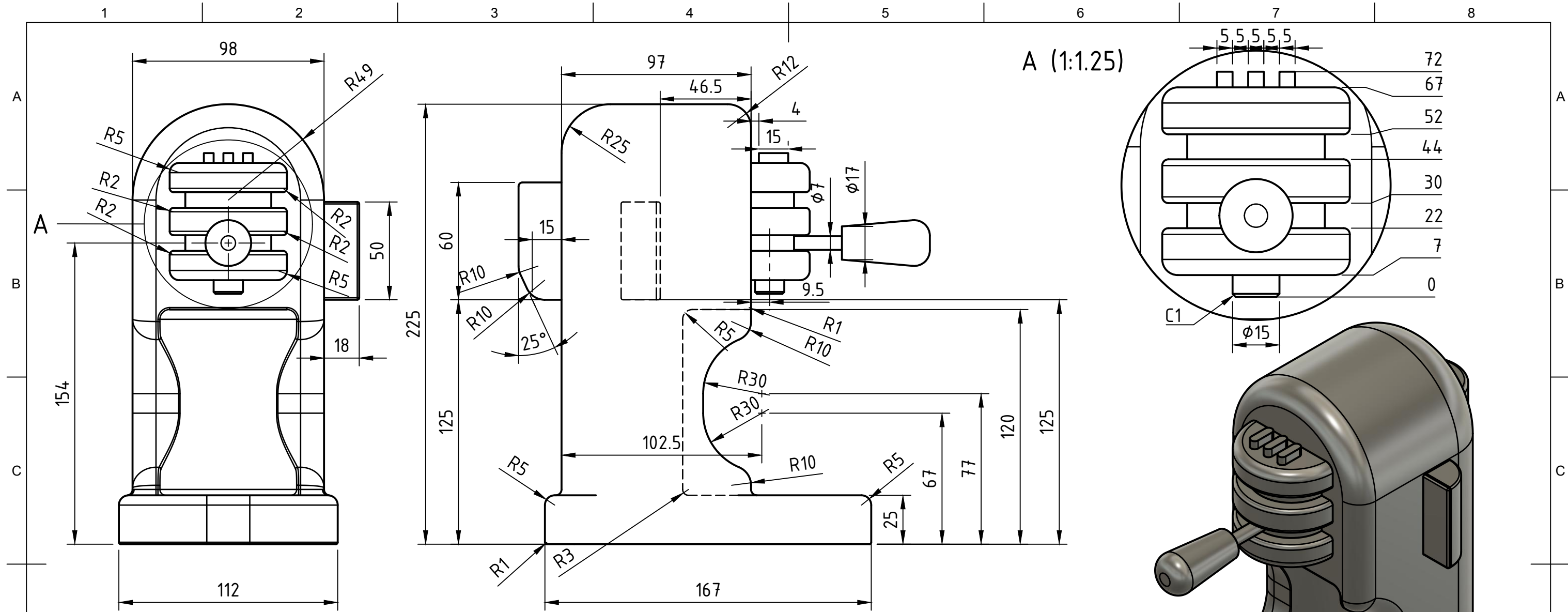
### **Module E – Painting & Decorating – 100% Judgement (10 Marks)**

E.1 Finish of all the Painted Surface – (Judgement) – 8 Marks

E.2 Attractive Display of Colours – (Judgement) – 2 Marks

## OTHER

Follow all the guidelines related to Health, Safety & Environmental aspects of the workplace. Follow all the necessary instructions given to you during your competition time.



Note :-  
 # All dimensions are in mm.  
 # Use minimum 3 colour.  
 # XX - Is the competitor code.  
 # YY - Is the competitor number.

Test Project for the 44<sup>th</sup> WorldSkills  
 Competition in Abu Dhabi, United Arab Emirates 2017.  
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Skill: Prototype Modelling		
Scale: 1:2	Date: DD.MM.YYYY	Paper: A3
Drawn / Design by: Bhaskar Singh B		Drawing No: India Skills-2018_TP45_XX_YY
Description: Coffee Making Machine		Rev: 01
		Page: 1 of 1