





**Siemens Centre of Excellence in Manufacturing  
National Institute of Technology, Tiruchirappalli**



**3D printed Face shield and Re-usable Face mask to protect against COVID-19**

The face shield was 3D printed using the FDM 3D printer available in the Rapid Prototyping Lab of Siemens CoE, NIT Trichy. The technical details and part file generation was done in collaboration with Mister Bot Education, Tiruchirappalli (an Organization under MoU with Siemens CoE).

**3D printed Face shield**

Model 1: Face Shield printed in small 3D printer	
	
Materials used:	PLA
Estimated Cost	Rs. 75/shield
Capacity	100/day
	
Materials used:	PLA
Estimated Cost	Rs. 90/shield

## Re-usable face mask

Face Mask printed in Stratasys F270	
	
Materials used:	ABS (Model), QSR (Support), PLA
Respirator protection	Not included
Cost	Rs. 300/mask
Capacity	50/day



### Project Team:

Dr. M. Duraiselvam  
 Dr. D. Sriram Kumar  
 Dr. V. Anandakrishnan  
 Mr. Biswajith Sahoo