



THE UNIVERSITY OF
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ENGINEERING

How to Submit A Job 3D Innovation Centre Engineering Workshop

Vincent Khau
Eleanor Lourey
Stefan Napau

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1 MakerBot Innovation Website

It is assumed that the user has a knowledge of how to use **MakerBot Print** and thus will not be covered here - tutorials are available via online resources.

Once the user has converted their **.stl** file into a **.print** file, login to <<https://mse-unimelb.innovationcenter.makerbot.com>>. Only **one member** per capstone or team project should register as an user.

Once logged in, Figure 1 depicts what the user should see.

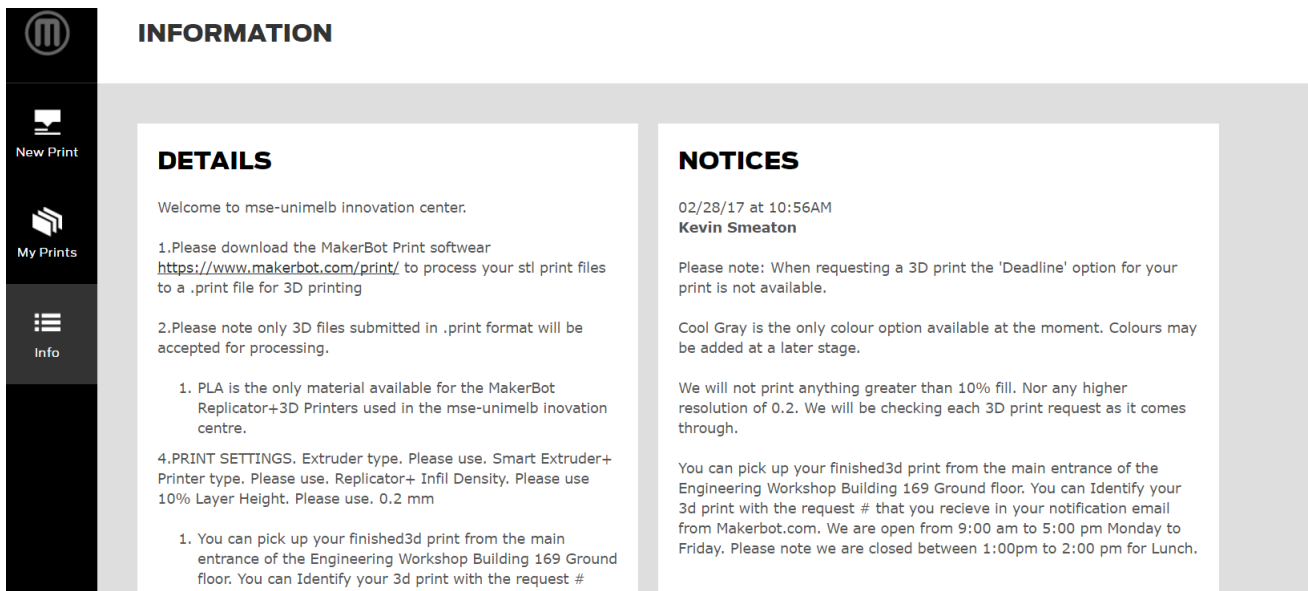


Figure 1: Default Home Screen

The website is divided into the following sections:

- **New Print** - Submit a new job request
- **My Prints** - Review job submissions, prints in progress and old prints
- **Info** - Announcements and general information about the 3D Innovation Centre can be found here

1.1 My Prints

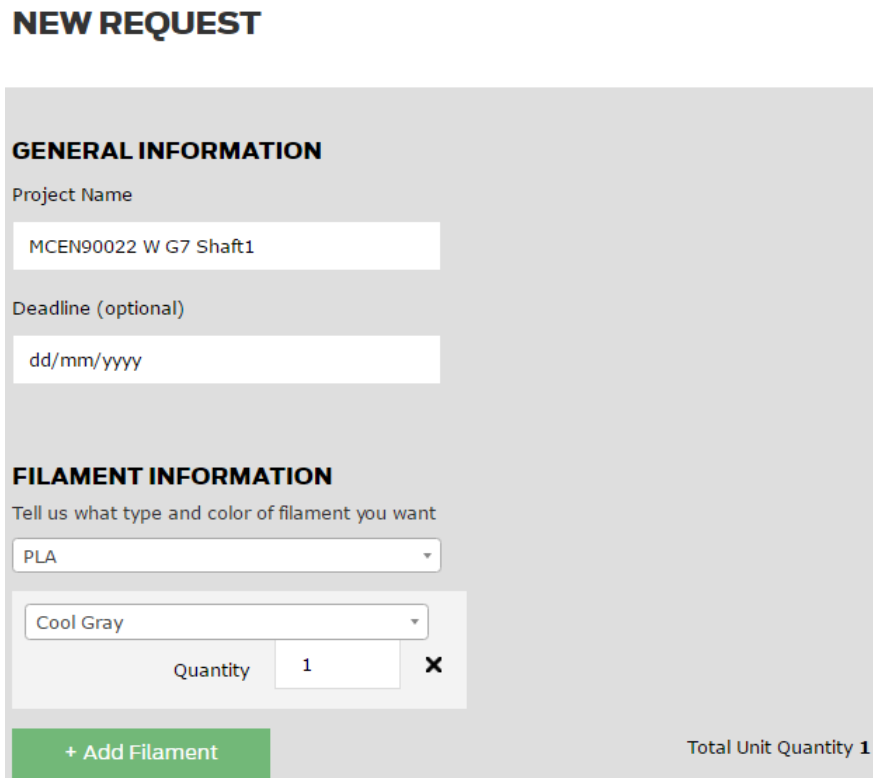
In this section the user can view the current requests and their status (Printing, Approval, and Complete) as well as the Old Prints and Old Requests. This section is just for data collection purposes, the user is not allowed to modify any old or current requests.

1.2 Info

This section is only for important announcements or information regarding general technical considerations, opening hours and contacts.

2 Submitting a Job

To start a new submission, click on **New Print**. This takes the user to the image displayed in Figure 2



The screenshot shows a web form titled "NEW REQUEST". It is divided into two main sections: "GENERAL INFORMATION" and "FILAMENT INFORMATION".

GENERAL INFORMATION

- Project Name:** A text input field containing "MCEN90022 W G7 Shaft1".
- Deadline (optional):** A text input field with a placeholder "dd/mm/yyyy".

FILAMENT INFORMATION

Tell us what type and color of filament you want

- Filament Type:** A dropdown menu with "PLA" selected.
- Color:** A dropdown menu with "Cool Gray" selected.
- Quantity:** A text input field with "1" and a delete icon (X).

At the bottom left is a green button labeled "+ Add Filament". At the bottom right, it says "Total Unit Quantity 1".

Figure 2: New Print Submission

Under Project Name enter the following details:

- If the user is submitting a job request relating to a **subject**, please enter the details in the following format under 'Project Name': **Subject no., Workshop No. (if applicable), Group no., Part Name** e.g. MCEN30014 W02 G14 Gear1
- If the user is submitting a job request relating to a **Capstone Project**, please enter the details in the following format under 'Project Name': **Subject no., Capstone No., Part name** e.g. MCEN90022 CP-CPU-000 Wheel
- If the user is submitting a job request as a PhD student, researcher or a staff member, please enter **Other, Part Name** in the **Project Name** section, and then detail the **Faculty, Project Details**, and **supervisor** in the 'Notes' section of the request.

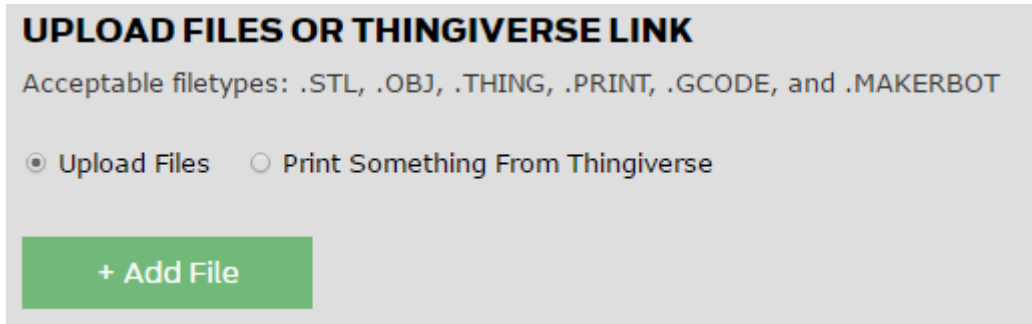
The **Deadline** is a general guideline for the operator: all jobs will be processed ASAP respecting the submission queue. Urgent jobs will be evaluated and treated separately.

In the **Filament** information section:

- The available materials are **PLA** and **Tough PLA** (in order to use the **Tough PLA** material the operator will discuss with the student and the related supervisor).
- The colour selection is a guideline for the operator: if the selected colour is available the operator will follow the request, if not the part will be printed with the available colours (jobs will not be rejected if the specified colour is not available).
- Leave **Quantity** as **1**

In the **Upload or Thingiverse Link** section depicted in Figure 3:

- Select Upload Files
- Click **+Add File** and upload the **.print** file required (if the user has multiple files they would like to print, submit separate jobs for each print. **Each Job Request** must have a **maximum** of **1 .print** file)



UPLOAD FILES OR THINGIVERSE LINK
Acceptable filetypes: .STL, .OBJ, .THING, .PRINT, .GCODE, and .MAKERBOT

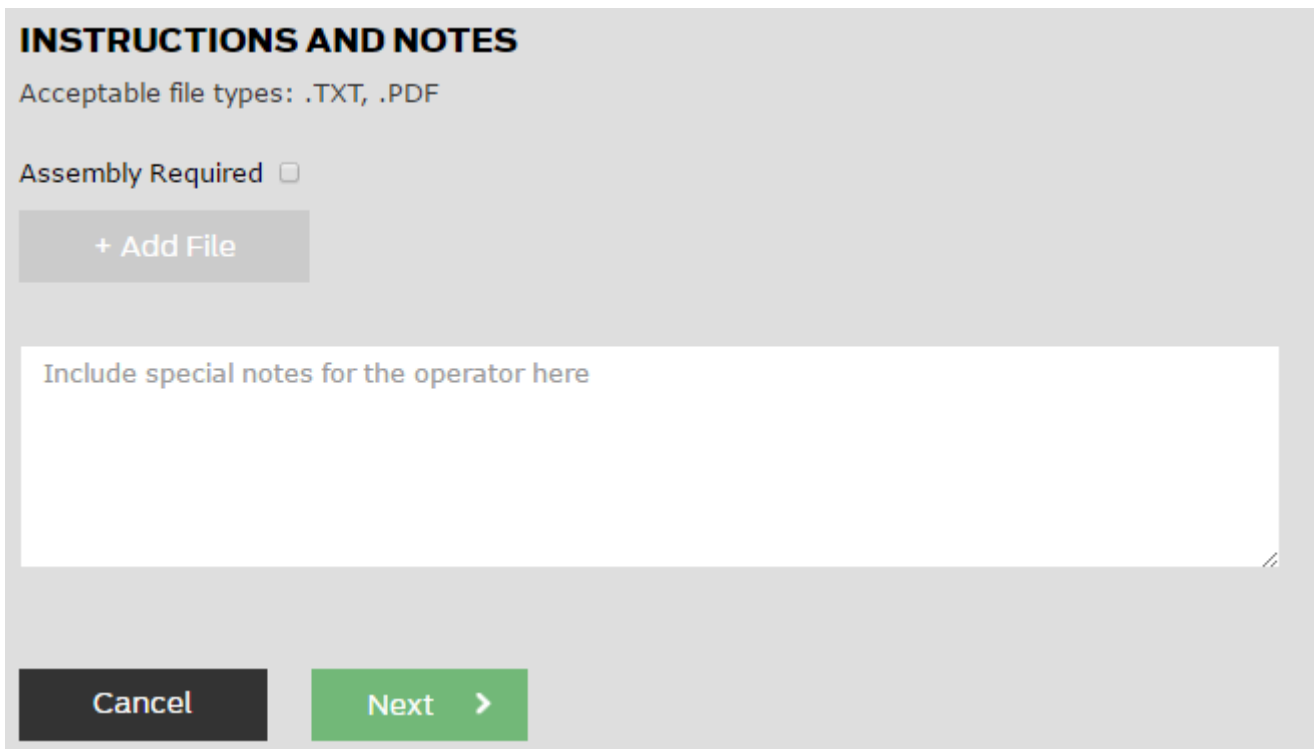
Upload Files Print Something From Thingiverse

+ Add File

Figure 3: Upload or Thingiverse Link

The operators will only process **.print** file types - any other file type will be rejected at this current time.

In **Instruction and Notes** displayed in Figure 4 the user can leave any comment regarding the choice of material, colour, filament etc. as well as reasons explaining why they require deviations from the standard 3D print settings specified. These notes will be evaluated by the operator and he/she might contact the user for further clarifications. The operators will **NOT** assemble the parts **NOR** remove the support/raft material.



INSTRUCTIONS AND NOTES
Acceptable file types: .TXT, .PDF

Assembly Required

+ Add File

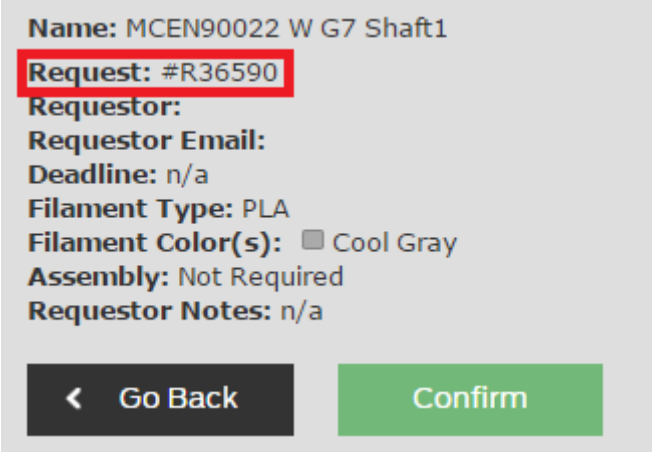
Include special notes for the operator here

Cancel **Next >**

Figure 4: Instructions and Notes

Continue the submission by pressing **Next**.

On the **Confirm Request** page, press **Confirm** as per Figure 5.



The screenshot shows a confirmation form with the following details:

- Name: MCEN90022 W G7 Shaft1
- Request: #R36590 (highlighted with a red box)
- Requestor:
- Requestor Email:
- Deadline: n/a
- Filament Type: PLA
- Filament Color(s): Cool Gray
- Assembly: Not Required
- Requestor Notes: n/a

At the bottom, there are two buttons: a black button with a left arrow and the text "Go Back", and a green button with the text "Confirm".

Figure 5: Job Confirmation

The user will receive an email with the successful submission notification and later on an email with the operator approval or rejection of the request. Job requests are processed and harvested in the morning from **9-10am**, and in the afternoon from **4-5pm**.

3 Collecting a Job

The user can collect their successful print from the front of the Engineering Workshop in a brown paper bag with the **Request No.** printed on the bag. In Figure 5, the **Request No.** is **36590** which will be printed on the brown paper bag - once the job has been harvested, it will be available to collect. **NO** entry to the 3D Innovation Centre is allowed without the prior approval of the operators. The Engineering Workshop is open from **9-5pm** and is closed between **1-2pm**.

4 Questions/Feedback/Contact

Please direct all questions regarding the 3D printing process to MSE-3Dprint@unimelb.edu.au. Please direct any questions about the Engineering Workshop to Kevin Smeaton at k.s@unimelb.edu.au