



# LASER CUTTER USAGE AND ACCESS POLICY

(DM 1.2 Issue 1)

## 1 DEFINITIONS

- 1.1 DM : Derby Makers
- 1.2 SC : Steering Committee
- 1.3 SME : Subject Matter Expert

## 2 GENERAL PRINCIPLES

- 2.1 The DM Laser Cutter has been purchased with DM funds in order to provide a sought-after making resource to the membership of DM at low cost.
- 2.2 All members are encouraged to learn how to use the machine in order to support both group and individual projects.
- 2.3 Furthermore, the Laser Cutter is intended as an attraction for potential new members, and will feature in any DM publicity.
- 2.4 At all times, Laser Cutter users should be considerate to each other, and aim to share the facility offered fairly.
- 2.5 In addition, on a session-by-session basis, all Laser Cutter users may need to give up their time to tasks which are of higher importance and urgency, for example when the Laser Cutter is required to undertake tasks in support of the Radio Museum, who host DM at no cost to us.

### 3 SUBJECT MATTER EXPERTS

- 3.1 At this issue of this policy, the SMEs for the DM Laser Cutter are as the following list :**
- 3.1.1 Morgan Barke
  - 3.1.2 Al Johnson
  - 3.1.3 Grant Gibson
- 3.2 Should this list need to be revised, this policy will be updated after review at a SC meeting.**

### 4 APPROVED AND NON-APPROVED USES

- 4.1 The DM Laser Cutter is intended for use by all competent DM members for the purposes of :**
- 4.1.1 Individual projects (non-commercial).
  - 4.1.2 Prototyping (potentially commercial, but in prototype quantities only).
- 4.2 The DM Laser Cutter is not intended to be used for volume production for commercial or non-commercial purposes : it is not a commercial machine and should not be operated like one.**
- 4.3 The only exceptions to this may be agreed on a case-by-case basis following discussion with the DM SC. Any member wishing to discuss this possibility should initially raise the question with one of the 3 Derby Makers officers (Chair / Secretary / Treasurer).**

- 5.1 All users must complete an Induction under the supervision of one (or more) of the SMEs (see Section 3a). The induction is to include what actions to follow in the event of a fire (see Section 10).
- 5.2 A User Guide is to be created [TBI] to identify the key steps involved in the creation of a cut.
- 5.3 All existing and new users will need to be familiar with the User Guide before starting to use the Laser Cutter, and the User Guide will need to be followed at all times unless under circumstances agreed with the SMEs (identified in Section 3a).
- 5.4 Training is intended to be informal between DM members, though guidance should only be provided by members who have already passed the Competence Assessment (see Section 6), and at all times if there any doubts about how to use the Laser Cutter, those questions must be referred to the SMEs.



- 6.1 All users of the Laser Cutter need to have been approved as competent by one or more of the SMEs (see Section 3a).
- 6.2 The standard competence assessment is to be the completion of an agreed assessment shape [TBD], plus demonstrated competence at (and understanding of) the set-up and tear down of all associated systems (including extractor/chiller).
- 6.3 Members will not be permitted to use the Laser Cutter for their own projects until they have completed the competence assessment.
- 6.4 This assessment can only be waived at the discretion of the SMEs (identified in Section 3a).
- 6.5 It is a requirement of Laser Cutter use that no settings should be changed without consultation with one or more of the SMEs. This is to avoid risk of damage to the machine by use of inappropriate settings.
- 6.6 It is also a requirement of Laser Cutter use that all materials should be approved by an SME, to prevent damage to the machine and/or risk of fire or toxic fumes.

- 7.1. While it is intended to minimize the cost of using the Laser Cutter, there will be running costs which will need to be covered, such as replacement parts etc. It is fair that the members using the Laser Cutter bear those cost rather than passing the cost on to all members.
- 7.2. Also, it is fair that members that are taking a higher proportion of Laser Cutter time are contributing more to these running costs.
- 7.3. Therefore it is proposed to operate the following pricing structure, applicable to each individual DM session :
  - 7.3.1. All users prior to completion of the Competence Assessment (see Section 6) : FREE
  - 7.3.2. All Competent users, first 20 minutes of use : FREE
  - 7.3.3. All Competent users, every subsequent 20 minutes of use : £1.00
- 7.4. If there are any other users waiting, then each user should plan to complete their task(s) within 1 hour.
  - 7.4.1. Note that Visicut contains a task duration estimating function.
- 7.5. If this is not practical, then agreement must be sought from those users waiting in order to continue cutting. Any remaining disputes must be referred to an SME.
- 7.6. It is intended that users will be able to pre-book Laser Cutter time using a Calendar accessible via the DM Cloud.
- 7.7. The pricing structure is intended to encourage users to complete as much preparation as possible offline.
- 7.8. Fees are to be provided on an honesty basis [TBD].
- 7.9. Such income is to be itemised separately in DM accounts, and is intended to be used for the specific purpose of Laser Cutter maintenance and repair as required, as determined by the SMEs.
- 7.10. The rate of income v expenditure associated with these payments is to be reviewed by the SC as required, and the pricing structure changed if required. As a minimum it is to be reviewed annually at the DM AGM as part of the Treasurer's statement.



## 8 REQUIRED DOCUMENTATION

- 8.1** In addition to the User Guide already mentioned in Section 5, the following documentation is required in order to ensure safe and reliable operation of the Laser Cutter :
- 8.1.1 Introduction Check List (for both new and existing users)
  - 8.1.2 Induction Completion List
  - 8.1.3 Lessons Learned Log
  - 8.1.4 Usage Log
  - 8.1.5 Competency Log – to include recording of both Initial and Ongoing competency, as determined by the SMEs
  - 8.1.6 Issues Log
- 8.2** It is outside the scope of this policy to determine exactly how these documents will be created and maintained. However a Cloud-based record for each is preferred, since paper records may be lost.

## 9 SET-UP AND SHUT DOWN

- 9.1** All users are responsible for the safe and considerate use of the Laser Cutter.
- 9.2** This includes ensuring that all necessary steps are taken at the start of any usage session, including :
- 9.2.1 All extraction and filtration units on and connected
  - 9.2.2 Chiller unit on
- 9.3** At the end of any usage session, the last user is responsible for safely shutting down and dismantling the Laser Cutter installation. (But it is expected that all members present will contribute to this process, regardless of whether they have been using the Laser Cutter that evening or not.)
- 9.4** Unless otherwise agreed with the Radio Museum, we must put the Laser Cutter away completely before the last DM member leaves the building.

## 10 EMERGENCY ACTIONS

- 10.1. In the event of an emergency while using the Laser Cutter, such as a fire within the Laser Cutter or the Filter Unit, the primary responsibility of all DM members must be for the safety of building occupants.
- 10.2. Standard building rules as documented in the building Fire Safety Manual are to be followed regarding evacuation and fire fighting. This will need to form part of the Induction, and all DM members should be aware of them.
- 10.3. If it is safe to do so, isolate the Laser Cutter and Filter Unit from mains electricity before evacuating the building

## 11 NON-EMERGENCY ACTIONS

- 11.1. In the event of a non-emergency situation, such as damage to the Laser Cutter or Filter Unit whether that prevents operation or not, which is not immediately hazardous :
  - 11.1.1. Both the Laser Cutter and Filter Unit are to be turned off and isolated from the mains.
  - 11.1.2. One or more of the SMEs is to be consulted immediately, and no further action is to be taken until this has been done. The SMEs in consultation with the Officers will then collectively agree what actions are to be taken.
- 11.2. If no Officers or SMEs are immediately available, the Laser Cutter should be fully packed away, the event should be logged in the Issues Log, and the Officers and SMEs should be informed via email. The Laser Cutter should not be used again until 11.1.2 has been completed.

## 12 AGREEMENT OF THIS POLICY

This policy was formally agreed by :

| Name            | Role                      | Signature   | Date        |
|-----------------|---------------------------|---|-------------|
| MORGAN BARKE    | Chair                     |  | 24/1/2019   |
| MARK HANCOX     | Secretary                 |  | 17-JAN-2019 |
| PAUL STARRS     | Treasurer                 |  | 17/1/2019   |
| Brendan STAPPEL | Steering Committee Member |  | 17/1/19     |
| Tony BROOKS     | Steering Committee Member |  | 17/1/19     |