

1 **Supplementary Materials for Slater et. al., ‘Individually Customisable Non-Invasive Head**  
2 **Immobilisation System for Non-Human Primates with an Option for Voluntary Engagement’**

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4 **I. Rendering\_M2.mpg.** Associated with Fig. 3

5 After image acquisition the scans are processed and converted to a 3D surface using Amide 3D  
6 software. This video shows the full head 3D image which is then sent to a 3D printer for creating the  
7 physical model of the head that is used to create the facemask and helmet.

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9 **II. M2\_Voluntary\_engagement.3GP.** Associated with Fig. 6

10 Initial stages of habituation involve holding the translucent mask or anchoring it to the chair while  
11 encouraging the animal to receive rewards (in this case juice) through the mouth piece. In this way the  
12 animal is focussed on the positive reinforcement while simultaneously becoming accustomed to the  
13 presence of the mask and placing its head into it to get the reward.

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15 **III. M3\_Voluntary\_Engagement.mp4.** Associated with fig. 6

16 Following the initial presentation of the mask to the animal as in the previous video, the mask is fixed  
17 to the training chair via the custom made frame and the sensor (white on top left of the mask) is  
18 placed to automatically allow the experimental system to provide fluid rewards whenever the animal  
19 places their face within the mask. Note that for some of the self-initiated trials the animal can self-  
20 restrain for many seconds and the experimental software can regulate the reward to encourage longer  
21 periods of self-restraint.