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| **ID** | 26 |
| **Lead Author** | Idriss Ait-Bouziad |
| **Title** | IV pouch holder for standard LandCruiser |
| **Problem Outline** | During outreach or general mission movements, it is often the case we bring back a patient severely ill to a reference hospital. To cover the basic medical needs, we use the Malle d’Urgence (emergency medical box) which contains IV bags.However, there is no standard way to securely attach an IV bag in our standard LandCruiser which are often used as ambulances. Currently, in most missions, a hook made of metal wire is attached to the central LC arch. This results in a widely moving IV line which often moves and falls resulting in an improper flow of liquids to the patients transported, difficulties in monitoring the flow and a high risk of the bag falling on the ground and patients losing fluids. |
| **Problem Solution** | The solution is an IV holder which can fit any LC attached to the arch but to the side in-between the windows. This would not bother the seated passengers and would allow a nice, secure line to the patient being transported.Variant 1 (preferred): A DIY procedure with field available materials and tools (needs a couple of different raw materials and options to suit most contexts).Variant 2: Create a prototype standard holder in the UK, that could be added to the APU-Greenlist (if the holder was to be mass produced), using a 3D printer or other non-field available tech. |
| **Criteria for Success** | 1. Properly holds the IV bag, no matter if it is flexible or a bottle and a 250ml or 1000ml container2. Stay in place on the worst roads we know (holds it tight)3. Sustainably built so the holder lasts years4. Allow live flow monitoring (drops/minute) and remaining content monitoring (volume left)5. Non-invasive for the LC (no holes needed in the bodywork) and windows still lockable |
| **Patients/Programmes Benefits** | Improved medical safety for our patientsImproved fluid flow monitoring by the medical teamImproved comfort for our patients |
| **Cost** | 12'000£ |
| **Timeline** | 4 to 6 weeks project1. Project team made up of one outreach nurse and one techlog (between missions)2. Exploring design options (one week)3. Prototype options in London Hackspace/FabLab and test them in lab conditions (one week)4. Develop the three most suitable models after lab test to be implemented at field5. Take the best performer and create a standard/Do It Yourself technical sheet (one week)6. Dissemination in OCA field website, github, MSF Innovation Portal, OCA FSU. To be shared with other OC’s as well. |
| **Collaborations** | MSF-UK – Manson UnitMSF-OCA FSU (in particular the Mechanical advisor) London Hackspace / London FabLab2 Expats off mission (TechLog and outreach nurse)One London NHS Ambulance servicePotential other medical organizations using ambulances (e.g. RedCross) |