

CONSTRUCTION OF A LOW COST SKULL HOLDER FOR FORENSIC PHOTOGRAPHIC SUPERIMPOSITION

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Photographic superimposition is a technique used for identification purposes in forensic practice. Skulls of skeletonised bodies, mass graves and putrefied bodies could be subjected to photographic superimposition with an ante-mortem photograph of the suspected victim with a life size photograph of the skull tested. An opinion regarding the identity would be made to courts based on superimposing anatomical landmarks and facial anthropometry. In order to facilitate photographic superimposition a skull holder is required with the facility of maintaining differential positions of the face and the skull to suit the view and the angle of the photograph to be superimposed. The aim of this project was to design and construct a low cost adjustable skull holder for purposes of forensic superimposition.

After conducting a thorough literature search, a portable skull holder was designed and constructed, with available cheap, local material. Wood was used in the construction of the holder. The upper end that attaches with the skull was padded with rubber for better grip. The distal end of the holder consists of two expandable plates that can be regulated by a screw. It can be inserted half way into the foramen magnum. Skulls can be fixed firmly by means of the screw fixed to the holder. A holder for the mandible was prepared, using three bicycle spokes as supports. These were covered with disposed saline tubes to maximise the grip. The height of the mandible holder is adjusted with a screw and the whole unit is fixed to the main skull holder by two aluminum strips. The main unit is mounted with a test tube holder for adequate balance and support. Using this holder, the skull base and the mandible can be mounted on a desired plane or angle, thus facilitating taking photographs from different directions.

The skull holder is adequate for purposes of forensic photographic super-imposition. The cost incurred in constructing the holder is minimal.