

## ABSTRACT

*One important image taking technique is camera movement and this tool will be designed with an android-based camera slider, this system will use a DC motor for horizontal camera movement and 2 servo to move the camera holder 180 degrees then this system can move manually using Android and can also move automatically with face tracking using Raspberry Pi, where the movement of the slider will follow the user's face.*

*This system is made with various kinds of hardware and software such as a camera slider that functions as a camera driver, Raspberry pi as a minicomputer, a DC motor as a converter of electrical energy into motion, a servo motor as pushing and rotating objects, a raspberry pi camera module as an image taker, nodemcu ESP8266 as a liaison between networks, android as the operating system on smartphones, open cv as image and video processing, python as programming language, codular as application processor and Blynk as Arduino module. Applications that are designed using codular software, after the application design stage is complete, the next stage is the design of the tool.*

*At this stage the design of the tool is carried out and the search for the components that will be used, at this stage the components used are in accordance with what has been selected and determined at the tool design stage. After the manufacture of the tool is complete, a test will be carried out to determine whether the system design is in accordance with the initial design or not if the results of the test are in accordance with the initial design, the camera slider manufacturing process is continued to the stage of combining tools and applications. Then the testing process will be carried out as a whole system that has been made, the test carried out is face tracking based on the distance between the user and the device at a size of 30-50 cm and the face is detected by the tool then after that face tracking testing is carried out based on the light intensity between the user with a device at a size of 120-250 lux and the face is detected by the tool, after that testing the android application by checking the buttons connected to the tool and can be run according to the user's wishes.*

*Keywords: camera slider, android, raspberry pi, face tracking*