

INSPIRATION



Passports, visas, identity cards, BRPs. Most identification and legal documents require pictures (headshots) to be taken in person at a public office for security and identification purposes. Current methods in public offices require verbal direction from officers and clerks to adjust face positioning to obtain a suitable picture. This can be uncomfortable for potential applicants and tiring for the officers while increasing waiting time.

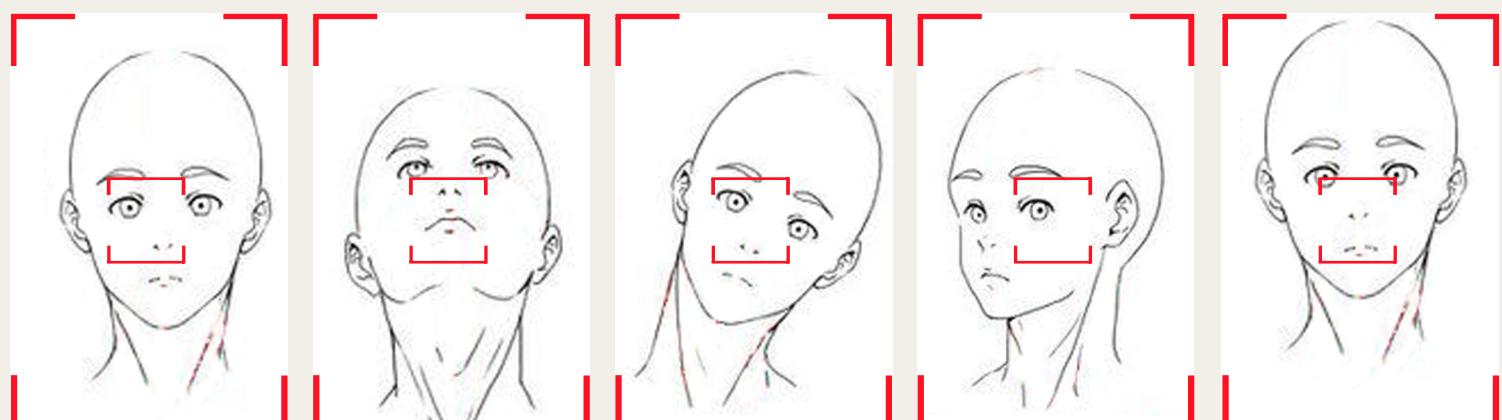


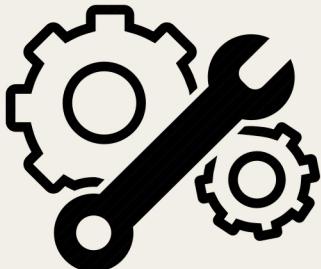
Diagram 1: 5 different incorrect orientations of face during headshots

OBJECTIVE

To automate and remove the need for manual operation of the camera verbal direction to adjust position of your face relative to the camera. This DMT focuses on the mechanical design and quality of the system to be implemented. To make public services requiring picture taking more efficient and decrease overall wait-time.



FEATURES



5 Degrees of Freedom:

To move and manipulate the camera appropriately to accommodate conditions and requirements (correct orientation) of the picture to be taken.

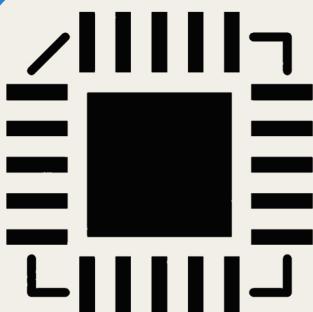
Mechanisms for movement in the required degrees of freedom.

Emphasis:

Smooth movement (minimal vibrations), precise, accurate to small movements.

Manufacturing Quality.

Efficient mechanical design.



Control theory to control motor position and motor speed.

As the autonomous response and computer vision aspect are left out of this DMT, a controller (i.e. joystick, app controller) will be used to control the mechanism for movement



Cheap and affordable. Can be easily implemented in many public offices which require such services.