**Setting up the camera-**

* Attach your camera to a servo motor.
* Connect the data pin of servo to pin 3 of Arduino, and the remaining two to ground and vcc.
* Connect the Arduino and the Raspberry Pi using a USB adapter.
* Make sure that the Arduino is listed as a connected device
* On your Raspberry Pi, upload the file “arduino\_code” over the Arduino using the Arduino IDE(install it if you don’t have it already).
* Run the script “rotation\_test.py” to check if everything is working as expected.
* Once we are done, the function rotate can now be used to rotate the camera to a given angle.
* For more detailed instructions, check out: <https://www.meccanismocomplesso.org/en/controlling-arduino-raspberry-pi/>

**Hardware Limitations-**

* Since Raspberry Pi is a device with very limited computation power, running heavy models like ours takes longer times to process and the output turns out to be not as efficient and effective as expected. In practice, with our model the frame rates may drop to 5-10 frames per minute at times.
* Since a lot of processes are at work simultaneously, the need for multi-threading and multiprocessing is deemed necessary. The specifications of Pi, unfortunately, do not meet the necessary requirements for smooth and effective handing of multiple threads required by the model.
* Considering other more powerful boards like Jetson etc. as an alternative for Pi can be helpful in dealing with these issues.