

3D Reconstruction and dimention measurement

Talk about how the task applied in reality

3D Reconstruction Procedures

In the order to reconstruct a 3D model of a specific object, **Draven** rotate around it capturing a video to be saved as input images, and yet through a Structure From Motion algorithm it produces a dense model of object then adds a texture to the model, as specsified in Figure 1.

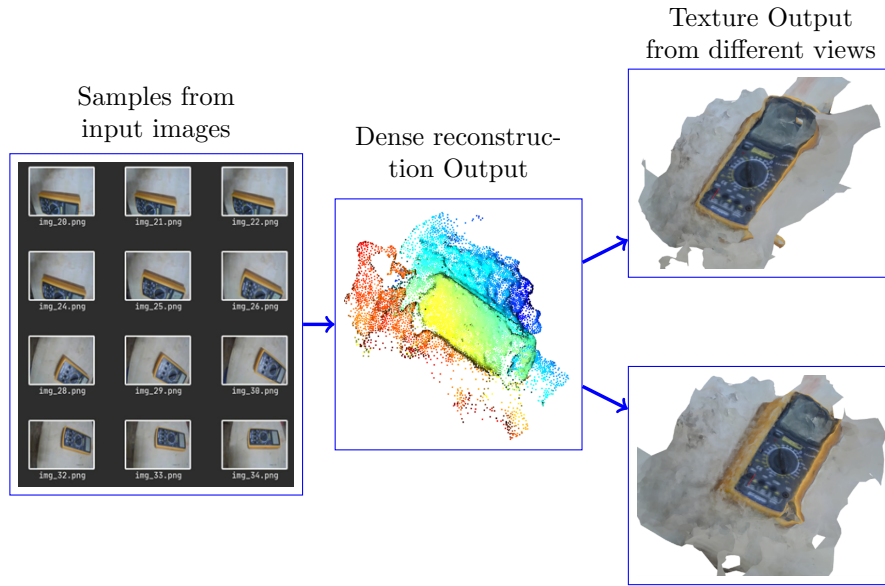


Figure 1: Reconstruction process

Dimention measurement procedures

To measure the required dimention, **Draven** measure a specsified dimention input from user during runtime through a GUI using Stereo Camera Calibration, then it can be saved as a reference on the 3D model for other dimention measurement, as specsified in Figure 2.

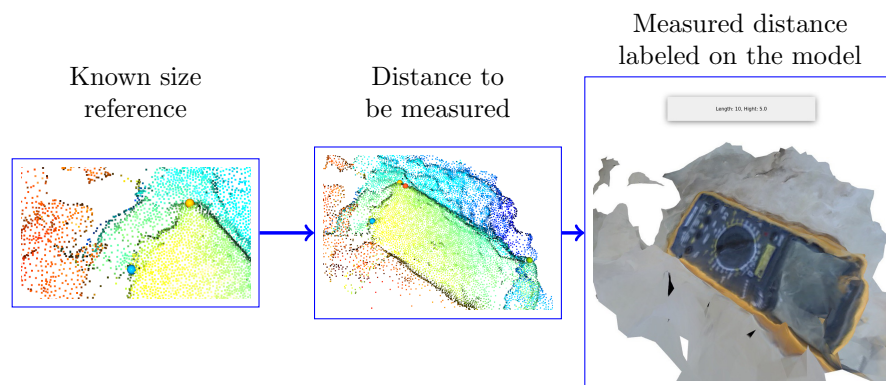


Figure 2: Measuring process