Vision-based Estimation aided Learning of Tether-Net Maneuver to Capture Rotating Space Debris - SUPPLEMENT DOCUMENT

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I. Pose Estimation Network Architecture

Layer Type	**Output Shape**
Input Layer	(1080, 1920, 3)
Conv2D + ReLU	(540, 960, 64)
Conv2D + ReLU	(270, 480, 256)
Conv2D + ReLU	(135, 240, 512)
Conv2D + ReLU	(68, 120, 1024)
Conv2D + ReLU	(34, 60, 2048)
Conv2D + ReLU (Bottleneck)	(17, 30, 512)
Conv2D + ReLU (Bottleneck)	(9, 15, 256)
Conv2D + ReLU (Bottleneck)	(5, 8, 128)
Fully Connected	(1024)
Position Estimation Layers	**Orientation Estimation Layers**
Fully Connected (512)	Fully Connected (512)
Fully Connected (256)	Fully Connected (256)
Fully Connected (Output: 3)	Fully Connected (Output: 4)

TABLE I: Pose Estimation Network Architecture

References

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