Actuator node	Prob-Domain	Rationale for domain value
Physical network access	0.0035	Using probability similar to commercial burglary as the upper probability bound https://www.pewresearch.org/fact-tank/2020/11/20/facts-about-crime-in-the-u-s/ft_20-11-12_crimeintheus_1/
Wirelesss network access	0.1	using VDBR misconfiguration statistic as the upper bound. All modern WiFi equipement allows for strong keys, a weak key would be an administrator's mistake. Based on VDBR research those types of mistakes happen about10% of the time. https://enterprise.verizon.com/content/verizonenterprise/us/en/index/resources/reports/2020-data-breach-investigations-report.pdf
Send malicious actuator messages	0.0035	TLS is not feasble to crack in human lifetime (https://www.thesslstore.com/blog/what-is-256-bit-encryption/),therefore attacker would need to know message queue names which would require inside knowlege such as a stolen actuator node which contains a node id and queue pattern. The attacker would then need to guess node ID as well as retaining valid queue authentication. (Presumes compromise goes undetected)
Gain access to controller OS	0.01	Would require the combonation of 2 adminstrative errors, each upper bound 10%
Gain access to controller application	0.01	Would require the combonation of 2 adminstrative errors, each upper bound 10%
Physical device theft for direct filesystem access	0.0035	Using probability similar to commercial burglary as the upper probability bound https://www.pewresearch.org/fact-tank/2020/11/20/facts-about-crime-in-the-u-s/ft_20-11-12_crimeintheus_1/
Mitigation measures		
Obfuscated unique queue names & node IDs or encrypt messages for non-repudiation	0.95	Barring an application exploit that grants the attacker knowledge of node identifiers and queue names the adversary is reduced to guessing. With multiple variables this likelihood is almost 0, therefore an upper bound of 5 % for an opening due to multiple adminstative errors is the worst case. Enabling encryption for identify managment reduces even this probability to almost 0 but it may be a good deal of additional effort for limited overall improvement.