## DroneBasedReforestation Train & Test Metrics: Difficulty: 5, Task: 1 Entropy Out of Energy Count Tree Drop Count Recharge Energy Count Save Location Count Cumulative Distance Until Tree Drop 0.05 -0.05 0.05 -0.05 source source source source source source 1.40 9 ne > 1.35 training training training training training --- training Value 0.00 0.00 0.00 0.00 test test test test test test -0.05-0.05-0.051.00 0.75 1.00 1.25 0.25 0.50 0.75 0.25 0.75 1.00 0.25 0.50 0.25 0.50 1.00 0.00 0.25 0.75 1.00 0.25 0.75 1.00 1.25 0.00 0.50 0.00 0.00 0.75 1.25 0.50 0.00 0.50 1e6 1e6 1e6 Step Step 1e6 Step Step 1e6 Step 1e6 Step Cumulative Tree Drop Reward Curiosity Value Estimate **Cumulative Distance Reward** Cumulative Normalized Distance Until Tree Drop Cumulative Distance to Existing Trees Episode Length 0.05 -0.05 0.05 source source source source source source training training training training training training 200 · 0.00 0.00 0.00 0.5 test test test - test test -0.05-0.05-0.050.50 0.75 1.00 1.25 0.50 0.75 1.00 0.00 0.25 0.50 0.75 1.00 0.25 0.50 0.75 1.00 0.00 0.25 0.50 1.00 0.25 0.50 0.75 1.00 0.00 0.25 1e6 1e6 1e6 Step 1e6 Step 1e6 Step 1e6 Step Step Step Extrinsic Value Estimate Cumulative Reward **Curiosity Reward** Extrinsic Reward **Policy Loss** Value Loss 100 source 2000 training Value 05 Value 50 Value 20 source source source test S 1000 training training training test test test 0.50 0.75 1.00 0.00 0.25 0.50 0.75 1.00 1.00 0.25 0.50 0.75 1.00 0.25 1.25 0.00 0.25 0.50 0.75 1.00 1.25 0.00 0.25 0.50 0.75 1.25 0.00 0.25 0.50 0.75 1.00 1.25 Step 1e6 Step 1e6 Step 1e6 Step 1e6 Step 1e6 Step Learning Rate **Epsilon** Beta Curiosity Forward Loss Curiosity Inverse Loss 0.20 source source 0.004 စ္ 0.0002 training training 0.15 source 9 0.5 test <u>o</u> 0.002 training test 0.000 0.0000 -0.00 0.50 0.50 1.00 0.25 0.25 0.25 1.00 0.25 0.50 0.25 0.50 0.50 1.00 1e6 1e6 1e6 1e6 Step 1e6