100 :1 gearbox

$15.45 \, N_m \left(\dfrac{1}{100} \right) = \boxed{0.1545 \, Nm}$

$2189.76 \left(\dfrac{1}{100} \right) = \boxed{2.18976 \; oz \cdot in}$

6. $F_T = F_w + \overset{\circ}{A}_f$

$F_T = \dfrac{100 kg}{4} (9.81)(sin(\theta))$

$32 \, oz \cdot in \left(\dfrac{100}{1} \right) = 3200 \, oz \cdot in$

$3200 \, oz \cdot in \left(\dfrac{1}{8} \right) = 3\cancel{5}2 \; \cancel{400 \, oz} \; 400 \, oz$

$\underset{\text{force !}}{}$

$= 400z \left(\dfrac{1 \, lb}{16 \, oz} \right) \left(\dfrac{4 \, N}{0.225 \, lb} \right)$

$= \cancel{41} \, N$

111.1

$111.11 \, N = \dfrac{100 kg}{4} (9.81)(sin \theta)$

$\boxed{\theta = 26.94^\circ}$

Exercise 6: Motor Control

Student's Name: Andrei Tumbar   Section: 2

PreLab		Point Value	Points Earned	Comments
PreLab	Motor Calculations	10	10 ·	CP 2/25
	H-Bridge Questions	10	10	

Demo		Point Value	Points Earned	Date
Demo	20% Duty Cycle at 10kHz	10	10	ot 2/25
	DC Motor Functionality	5	5	LJB 3/15/22
	Stepper Motor Functionality	5		
	Servo Motor Functionality	5	5	CB 3/15
	Simultaneous TI Car Motors-Servo Motor	15	15	ot 3/15

To receive any grading credit students must earn points for both the demonstration and the report.