**Existing motor without encoder:**

**uxcell DC 12V 120RPM Gear Motor High Torque Electric Reduction Gearbox Geared Motor Eccentric Output Shaft**

[**https://www.amazon.com/dp/B01KTYPD8U/ref=cm\_sw\_r\_sms\_apa\_tv.kAbTWN6BPK**](https://www.amazon.com/dp/B01KTYPD8U/ref=cm_sw_r_sms_apa_tv.kAbTWN6BPK)

**Motor with encoder:**

NOTE:   
 - Need to have similar shaft size and form factor

- Needs to have the same torque

<https://www.amazon.com/dp/B0788CMXGP/ref=sr_1_2?ie=UTF8&qid=1513282735&sr=8-2&keywords=dc+motor+with+encoder+4kg%2Fcm+torque>

Motor:

<https://www.amazon.com/12V-DC-Geared-Motor-Encoder/dp/B0756J95TY/ref=sr_1_10?ie=UTF8&qid=1513282712&sr=8-10&keywords=motor+with+encoder>

**SDK for MSP 432:**

http://www.ti.com/tool/SIMPLELINK-MSP432-SDK