

# AN714 – TPDO and RPDO Writing a Message

## Introduction

The purpose of this application note is to provide an example of writing and reading the TPDO and RPDO message.

## TPDO

TPDO stands for Transmit PDO (Process Data Object) protocol.

## RPDO

RPDO stands for Receive PDO (Process Data Object) protocol.

## PDO

PDO stands for Process Data Object. Transferring 8 bytes (or 64 bits) in a message using binary code.

## Destroy TPDO1

‘Destroy’ the TPDO by setting the leading bit of the COB-ID to ‘1’.

TPDO1 default COB-ID when not destroyed is 0x400001FF.

Write object 0x1800, sub-index 1 with new COB-ID =  
0xC00001FF.

## Unlock TPDO1

Unlock the TPDO1 mapping parameters. Set the ‘number of entries’ parameter to ‘0’.

Write object 0x1A00, sub-index 0 = 0.

## Edit Parameters

Edit the mapping parameters to point to the objects that you are interested in.

(0x1A00, sub-index 1 through 4)

## Lock TPDO1

Lock the TPDO1 mapping parameters.

Write 0x1A00, sub-index 0 = 4 (or indicate the number of mapped objects)

## Un-Destroy TPDO1

‘Un-Destroy’ TPDO1.

Write object 0x1800, sub-index 1 with new COB-ID = 0x40001FF.

Version	Date	Author	Comments
1.00	June 17, 2022	Greg LaRonde / Sue Thomas	Initial Release