# Setup. Android - Matlab&Simulink

La seguente procedura è valida solo per PC con Windows o Mac e smartphone Android. È possibile sviluppare anche per iPhone ma non è possibile lavorare da Windows. In fondo al documento alcuni dettagli.

## (A) Installazione

- 1. Installare MATLAB&Simulink (con Add-ons di default) <u>https://it.mathworks.com/downloads/web\_downloads/download\_release?release=R2019b</u>
  - È necessario creare un account mathworks con la mail @studenti.unimi.it
- 2. Installare Android Studio 3.4.2 (Le versioni successive non sono ancora supportate) https://developer.android.com/studio/archive

### (B) Configurazione Android Studio

- 1. Aprire Android Studio
- 2. Click su SDK manager 🔍 in alto a destra nella barra degli strumenti
  - a. Verificare che in Android SDK Location ci sia una posizione del tipo
     "C:\Users\Utente\AppData\Local\Roaming\Sdk", è possibile cambiarla ma sarà necessaria nella configurazione di Matlab
  - b. In SDK platforms deve essere selezionata "Android 9.+ (Q)"
  - c. In SDK tools devono essere selezionati Android SDK Build-Tools, Android SDK Platform-Tools, Android SDK Tools, NDK, Android Support Repository, Google Repository
- 3. Apply e al termine della procedura chiudere Android Studio.

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#### (C) Configurazione Matlab

- 1. Aprire Matlab R2019b e fare click su Addons and nel pannello HOME
- 2. Cercare "Simulink Support Package for Android Devices" e installarlo
- 3. Eseguire l'utility di Hardware Setup al termine dell'installazione, descritta di seguito al punto 4.
  - a. Se non dovesse apparire o fosse necessario rieseguirla, fare click su Addons -> Menage Addons Addons individuare "Simulink Support Package for Android Devices" nell'elenco e fare click sull'ingranaggio:



- 4. Seguire le istruzioni in Hardware Setup, verificando nell'ordine (in step sequenziali)
  - a. Che Android Studio venga riconosciuto
  - b. Che le SDK siano installate nella directory corretta (punto B.2a)
  - c. Che sul proprio smartphone siano attivate le opzioni di sviluppo
  - d. Che sia attivo il Debug USB sul proprio smartphone
  - e. Che siano installati i driver per la connessione tra il pc e lo smartphone. In genere non sono necessari e si può spuntare la casella "I have installed...". Se nei passaggi successivi matlab non riuscisse a comunicare con Android è sufficiente tornare indietro e seguire le istruzioni per installare i corretti driver
  - f. Che lo smartphone sia connesso via usb al pc (consentendo dallo stesso il debug)
  - g. Che sia disponibile nel riquadro di selezione
  - h. Che sia connesso alla stessa rete WiFi
  - Che il test di compilazione/esecuzione vada a buon fine cliccando su "verify installation". Questo test può non andare a buon fine se la rete WiFi è sovraccarica o è necessario installare i driver del punto 4e. Inoltre alcune porte USB del pc potrebbero funzionare meglio rispetto ad altre.

Ha	rdware Setup	- 🗆 X						
Verify Configuration of Your Android Device								
Veri deve	fy the configuration of your Android device and connection to the lopment computer.	What to Consider This process will build and run a test app on your device. This test app confirms the support package						
0	Build App	works as expected. For more information on what the						
0	Run App	test app does, click <u>here</u>						
0	Test connection	The test app will be deleted from your device once verification is successful.						

#### (D) Note su Mac/IOS

Se non si dispone di uno smartphone Android ma solo iOS, è possibile installare il "Simulink Support Package for Apple iOS Devices" ma è compatibile solo con l'ambiente Mac.

Chiaramente non è necessario installare Android Studio.

La procedura di installazione dovrebbe essere la medesima ad eccezione del punto C.2 e dei punti C.4\_ che dipendono strettamente dall'ambiente iOS.